

MEDICAL TIMES

Journal for the Family Physician

December 1959

The Nervous Patient

Valvular Heart Disease

Mast Cell Disease



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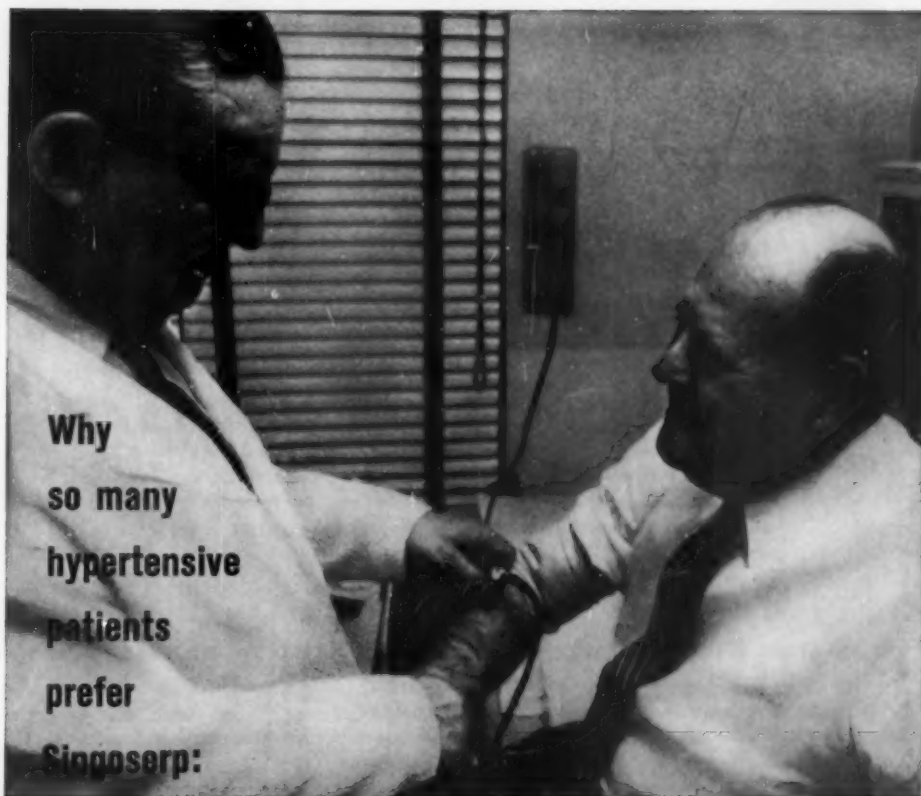
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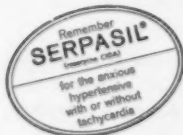


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*Herrmann, G. R., Vogelpohl, E. B., Hejtmancik, M. R., and Wright, J. C.: J.A.M.A. 189:1609 (April 4) 1959.



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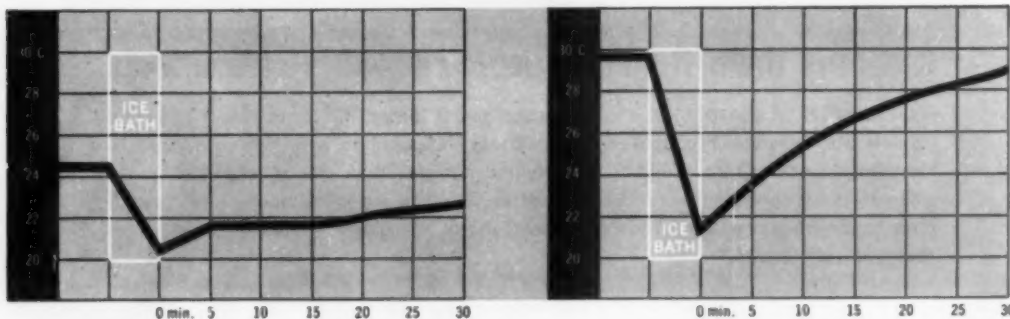
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Reference: 1. Kappert, A.: Schweiz. med. Wchnschr. 85:273, 1955. Bibliography: 1. Van Wijk, T.W.: Angiology 4:103, 1953. 2. Gilhespy, R.O.: Brit. M.J. 2:1543, 1957. 3. Gilhespy, R.O.: Angiology 7:27, 1956. 4. Winsor, T.: Angiology 4:134, 1953. 5. Reeder, J.J.: Geneesk. gids. 31:370, 1953.



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It's Christmas Eve and the small patients in the pediatric section of the Norwalk (Conn.) Hospital help to trim the playroom tree. Assisting the 2-year-old girl to put the angel in place is Dr. Allen Paisner, chief resident. A special stocking is hung for each patient, which makes for a scene of excitement Christmas morning. For more about the cover see page 216a.

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1

Paul, W.D.; Dryer, R.L., and Routh,
J.L.: J. Am. Pharm. Assn.
(Scient. Ed.) 39:21 (Jan.) 1950.

2

Fremont-Smith, P.:
J. Am. Med. Assn. 158:386
(June 4) 1955.

3

Tebrock, H.E.: Ind. Med. & Surg.
20:460-462, 1951.

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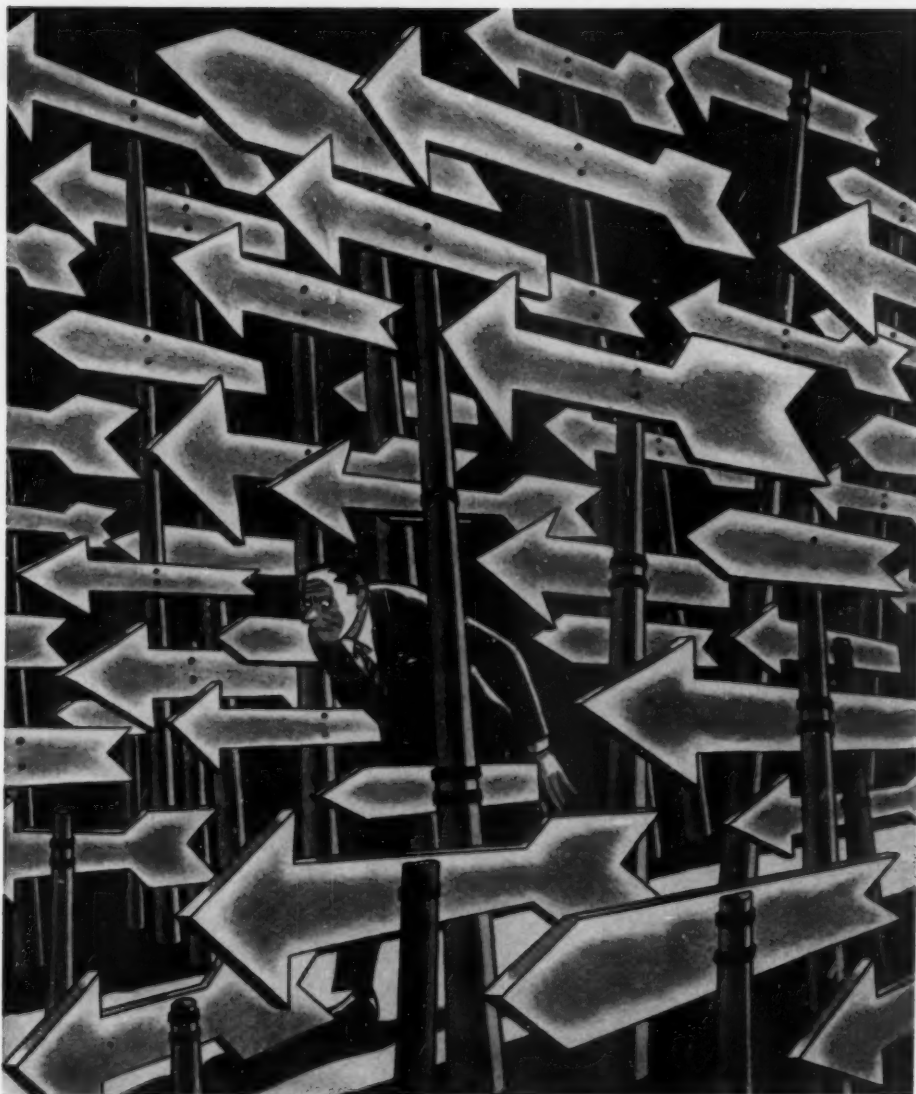
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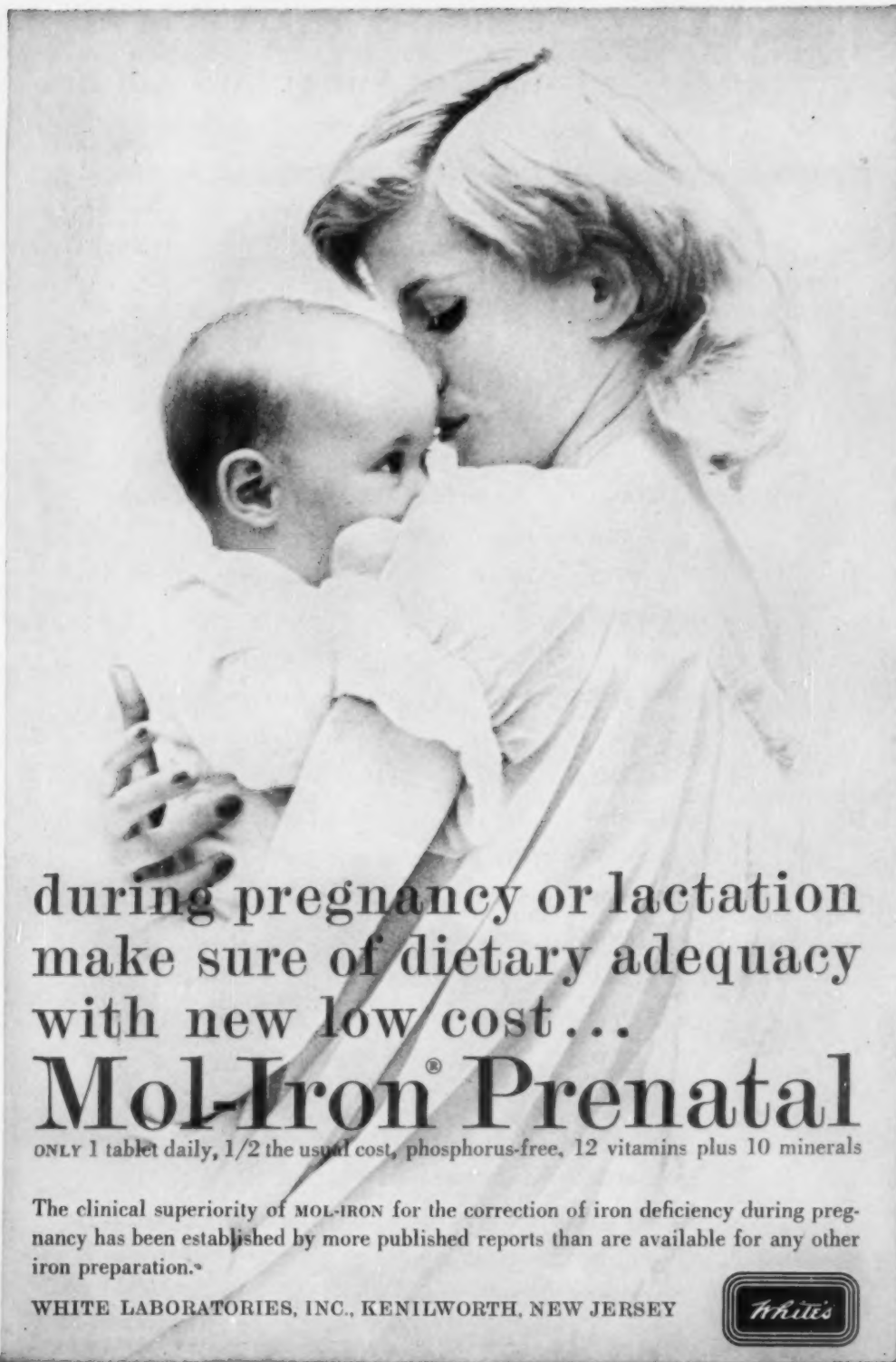


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1. Bodi, T., and Levy, H.: Clinical report, cited with permission. 2. Wetzler, R. A., and Phillips, R. M.: Clinical report, cited with permission. 3. Prigot, A.: Clinical report, cited with permission. 4. Gosline, E., et al.: *Am. J. Psychiat.* 115:939 (April) 1959. 5. Turvey, S. E. C.: Clinical report, cited with permission.

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Off the Record...

True Stories From Our Readers

Contributions describing actual and unusual happenings in your practice are welcome. For obvious reasons only your initials will be published. An imported sculptulite figurine... an amusing caricature of a physician... will be sent in appreciation for each accepted contribution.

First Things First

Recently called to the local hospital one evening to see a chronic arthritic, I was surprised to note more than the usual confusion as I approached the examining room. Rushing in, I found the remains of a cardiac patient, who had expired on admission. My patient was sitting in the adjacent lobby, literally surrounded by the grief stricken relatives. In my most tactful manner, I explained to my patient in a low voice that the man had expired and we would have to wait until the mortician removed the body. Then came, without hesitation, in a clear un-muted voice this emphatic assertion, "Well, Doctor, I was here first."

This is a case of doctor, patient and relations, all unpleasantly present.

R. R. E., M.D.
Centerville, Ia.

Explosion in a Bedpan

In the good old days, before the advent of sulfas, penicillin, other antibiotics, antihistamines, the steroids, and tranquilizers, the practice of medicine included a host of drugs no longer mentioned in the pharmacopeia. Some of these therapeutic agents were routine home remedies, others were of a more potent nature as Castor Oil and Calomel, and some even of an exotic and perhaps disastrous nature, such as Croton Oil and Cantharides.

One patient requiring unusual treatment was a refractory asthmatic, whose current attack had qualified him for admission to the charity

service at the hospital where I was a resident at the time. The usual treatments available in that day, such as moist inhalations, epinephrine, barbiturates, and other especially compounded prescriptions suggested by the staff of the medical service, weapons that in their previous experience had been tried and found true, were of no avail.

After more than a week, the patient was still patiently wheezing, having to sit upright in bed for some slight relief, and utterly unaffected by everything that a dozen or so practitioners had been able to suggest or throw at him. Finally, someone suggested a mode of therapy which was at least new and different. It was an oil-ether enema. The details called for two ounces of ether and four of olive oil to be mixed, warmed to body temperature, and injected. This was done without untoward delay. Everyone then retired, leaving the patient alone to find an unfettered breath of air assisted by the latest medical aid.

In due course of time a bed pan was needed and called for. He was again left alone. He was a lonely man and not one to go too long without the comfort and solace of the nicotine weed. The thought had no sooner occurred to him, than he instituted the proper train of action to procure a few puffs of smoke. He was by nature a very tidy man, and since he had been taken off of cigarettes when the treatment for the asthma was instituted, no ash tray had been provided for him. A few minutes later,

Concluded on page 29a

MADRIQID

(125-mg CAPSULES OF MADRIBON)



MADRIQID

the 125-mg capsule form of Madribon—shares the full therapeutic potential of the parent compound

- the same antibacterial effectiveness—up to 90 per cent in over 15,000 documented cases
- the high safety factor—no serious side effects and less than 2 per cent incidence even of mild reactions
- the minimal alteration of normal bacterial flora with resultant lowered risk of superinfections

MADRIQID

offers definite practical and psychological advantages

Madriqid is designed especially for use when the physician prefers q.i.d. doses of Madribon in the treatment of bacterial respiratory infections. Madriqid provides **practical advantages** for the physician since it permits him to adjust total daily dosage as desired. It provides **psychological advantages** for the patient who may respond better to and have more confidence in a q.i.d. regimen or in capsule form of medication.

For recommended dosage and precautions consult product literature.

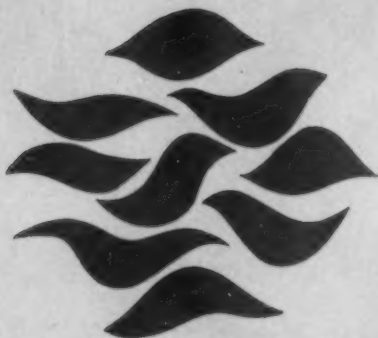
Supplied: Madriqid Capsules, 125 mg, gold colored—bottles of 100 and 1000.



**ROCHE
LABORATORIES**

Division of Hoffmann-La Roche Inc.
Nutley 10, N. J.

MADRIQID[®]—
MADRIBON[®]—
2,4-dimethoxy-
6-sulfanilamido-
1,3-diazine
ROCHE[®]



in eight years Novahistine hasn't cured a single cold—but it has brought prompt relief of symptoms to almost 8,000,000 patients*



With the introduction of Novahistine, a better and safer way to relieve symptoms of a cold became available to physicians. The synergistic action of the Novahistine formula...combining an orally-effective vasoconstrictor with an antihistamine...promptly clears the air passages and checks irritant nasal secretions. NOVAHISTINE can eliminate the problem of rebound congestion and damage to nasal mucosa in patients who misuse topical applications. • For long-lasting "Novahistine Effect" prescribe Novahistine LP Tablets...which begin releasing medication as promptly as conventional tablets but continue bringing relief for 8 to 12 hours. Two Novahistine LP Tablets in the morning and two in the evening will effectively control the average patient's discomfort from a cold. Each tablet contains phenylephrine HCl, 20 mg., and chlorprophenpyridamine maleate, 4 mg.

*Based on National Prescription Audits of new Novahistine prescriptions since 1952.



PITMAN-MOORE COMPANY Division of Allied Laboratories, Inc. • Indianapolis 6, Indiana

Novahistine LP
LONG-ACTING

†Trademark

after having fully enjoyed the savor of each puff, he needed a place to dispose of the butt.

Carefully he slid the sheet down, raised up his mid-portion and dropped the still-smouldering cigarette into the bedpan. The timing must have been quite good, as there was a muffled sound, and our patient found himself on the floor, bottom up and rather warm.

The treatment must have effected a cure, for, he signed out of the hospital almost immediately, refusing all further treatment, and never returned. We wished for a follow up on this patient as cures for asthma were scarce in that day and time.

B.C.C., M.D.
Memphis, Tenn.

Matter of Fact

I had a patient who, following a fistula operation, came into the office for rechecks of her rectum numerous times. One day she told the receptionist, "I've been coming to the doctor so many times for rectal inspection that the nurse has me undress, lie down on the table, and covers me with a sheet. Then the doctor comes rushing in, and without even looking at my face raises the sheet to check my operation and say, 'Good morning, Mrs. Cartwright.'"

W. M. A., M. D.
Waco, Tex.

Pollen Count Up

Mr. Smith has been my Hay Fever patient for many, many years. Patiently, year in and year out he has come the appointed times per week taking his shots in disgusted resignation. His only murmur of resentment, beyond an unsmiling countenance, has been that he feels worse when he's home and "how can I feel with that damned weed growing in my back yard?" Since Mr. Smith isn't given much to conversation and, since I know Mrs. Smith so well, I guessed his home environment didn't

help his discomfort much. Also, knowing that very often ragweed can be found growing in any patch of empty lot right here within the city limits, I never paid much attention to his unhappy murmurings.

Last week, however, Mrs. Smith came to see me and, when I politely asked her about her husband's condition, she repeated to me almost verbatim what he has been saying these many years. A little irked, and then curious because of the similarity of their statements, I asked "How come?" She said that there was ragweed growing all over the backyard of the four family house in which they lived. Amazed, I asked her why she did not ask the landlord to remove it since I was sure it didn't add anything to her husband's comfort. She said that she had not only asked him about it, but had pleaded tearfully. "Do you know what my landlord answered me?" "It's a *beautiful* plant and I enjoy watching it wave back and forth in the wind and, besides, if it bothers you, I'd rather you remove yourself than part with such a graceful flower! I like it."

A. E. B., M.D.
Brooklyn, N. Y.

I. O. U.

I had just hung out my shingle and was waiting for my first patient to walk in off the street. The door bell rang and, after allowing some time to elapse, I opened the door to the reception room to greet him or her. I was a bit disappointed, for the person was a man with a brief case under his arm. I invited him in to my office and asked what I could do for him. He said he represented a Collecting Agency and wanted to assist me in collecting my old accounts. I let him talk for a while and then I interrupted to say that I had no standing debts owed me. He looked perplexed and astonished. "You see, I just started practice today," I said.

I. S., M.D.
Troy, N. Y.

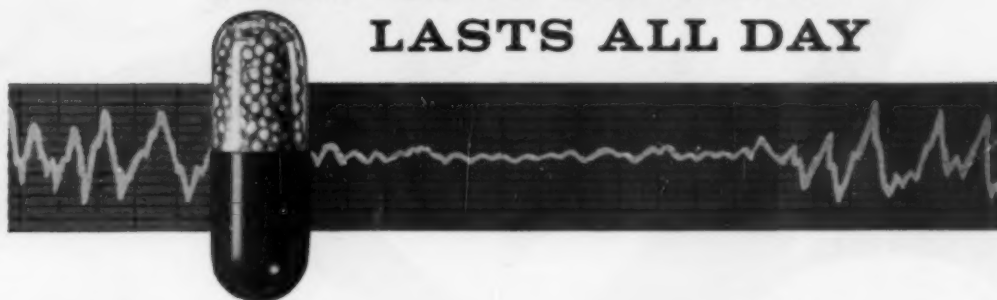
NEW AND EXCLUSIVE

**FOR SUSTAINED
TRANQUILIZATION**

MILTOWN® (*meprobamate*) now available
in 400 mg. continuous release capsules as

Meprospan®-400

**JUST ONE CAPSULE
LASTS ALL DAY**



Meprospan-400[®]

MILTOWN[®] continuous release capsules

**HIGHER POTENCY
FOR GREATER CONVENIENCE**

- relieves *both* mental and muscular tension without causing depression
- does not affect autonomic function
- does not impair mental efficiency, motor control, or normal behavior

Usual dosage: One capsule at breakfast, one capsule with evening meal

Available: *Meprospan-400*, each blue capsule contains 400 mg. Miltown (meprobamate)
Meprospan-200, each yellow capsule contains 200 mg. Miltown (meprobamate)
Both potencies in bottles of 30.

 **WALLACE LABORATORIES, New Brunswick, N. J.**

ONE-0109



NEW IN TABLET FORM

for control of
infectious diarrhea

All the advantages of liquid SPENSIN-PS in convenient tablet form. Two synergistic antibiotics, polymyxin and dihydrostreptomycin for decisive bactericidal action. The activated adsorbent of 5 to 8 times kaolin's capacity: *Attapulgit*—shown by *in vitro* studies to adsorb enteropathogenic viruses and bacterial endotoxins.

SPENSIN-PS: removes bacterial endotoxins • kills organisms susceptible to polymyxin and dihydrostreptomycin • restores normal fluid absorption • soothes irritated intestinal mucosa • produces stools of normal consistency.



IVES-CAMERON COMPANY
New York 16, N.Y.

SPENSIN®-PS

Tablets and Suspension: Activated attapulgit, pectin, alumina with polymyxin B sulfate and dihydrostreptomycin



Diagnosis, Please!

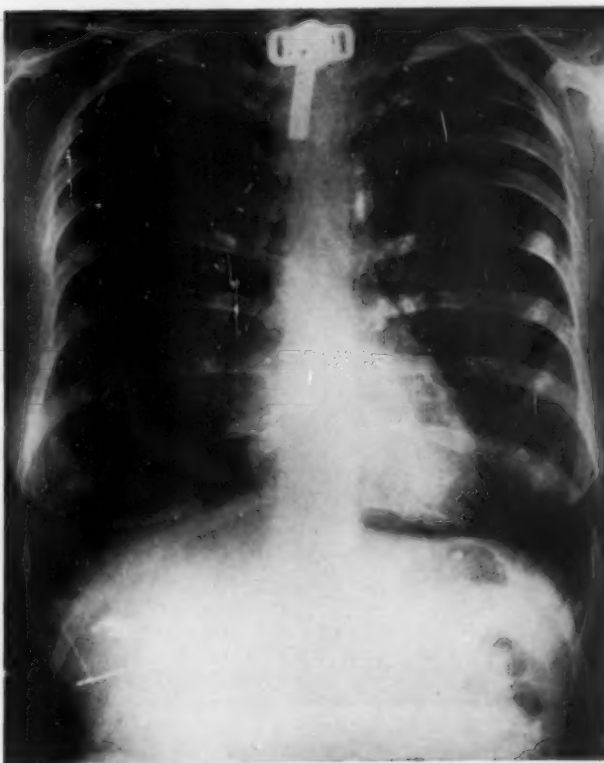
Edited by Maxwell H. Poppel, M.D., F.A.C.R., Professor of Radiology,
New York University College of Medicine and Director of Radiology, Bellevue Hospital Center

*Forty-three-old female. Tracheostomy performed for
severe edema of larynx with a generalized giant urticaria.*

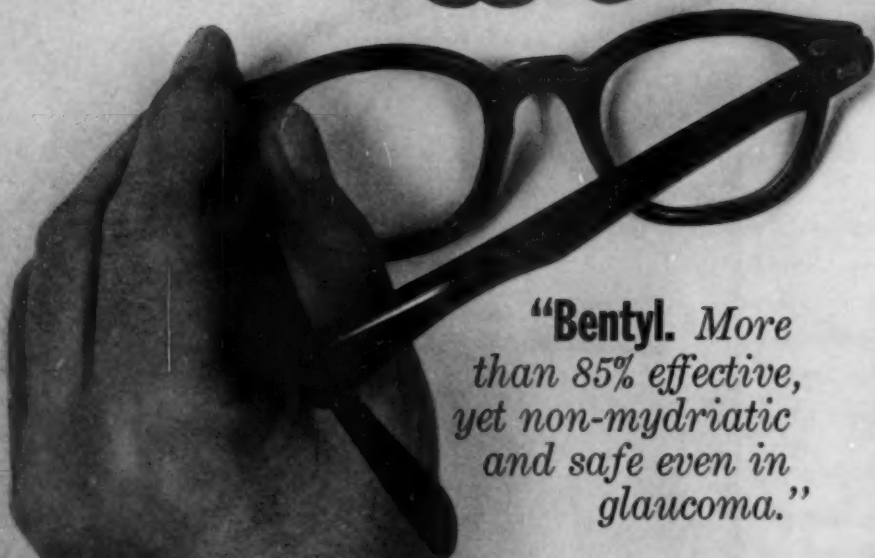
Which is your diagnosis?

- | | |
|-----------------------|--------------------------|
| 1. Pulmonary edema | 3. Sarcoid |
| 2. Congestive failure | 4. Mediastinal emphysema |

(Answer on page 214a)



*"I've heard
there's an
antispasmodic
with near-
certain results.
What's its name?"*



**"Bentyl. More
than 85% effective,
yet non-mydriatic
and safe even in
glaucoma."**

TRADEMARK: BENTYL® (DICYCLORIMINE) HYDROCHLORIDE

For fast, sure, safe relief of G.I. spasm and pain, prescribe Bentyl 20 mg.
with Phenergan. Dosage: 2 capsules t.i.d.
The Wm. S. Merrell Company, New York • Cincinnati • St. Thomas, Ontario



"...safely, comfortably, and effectively useful in initial digitalization, redigitalization and maintenance digitalization of patients in heart failure."*



Rheumatic Heart Disease

GITALIGIN^{®†}

WIDEST SAFETY MARGIN—AVERAGE THERAPEUTIC DOSE ONLY $\frac{1}{3}$ THE TOXIC DOSE. The average therapeutic dose of other digitalis preparations is $\frac{2}{3}$ the toxic dose.[‡]

FASTER RATE OF ELIMINATION THAN DIGITOXIN OR DIGITALIS LEAF. Therefore, should toxicity inadvertently occur, symptoms would be of much shorter duration with GITALIGIN.

THESE SIMPLE DOSAGE EQUIVALENTS MAKE IT EASY TO SWITCH YOUR PATIENT TO GITALIGIN—0.5 mg. of Gitaligin is approximately equivalent to 0.1 Gm. digitalis leaf, 0.5 mg. digoxin or 0.1 mg. digitoxin.

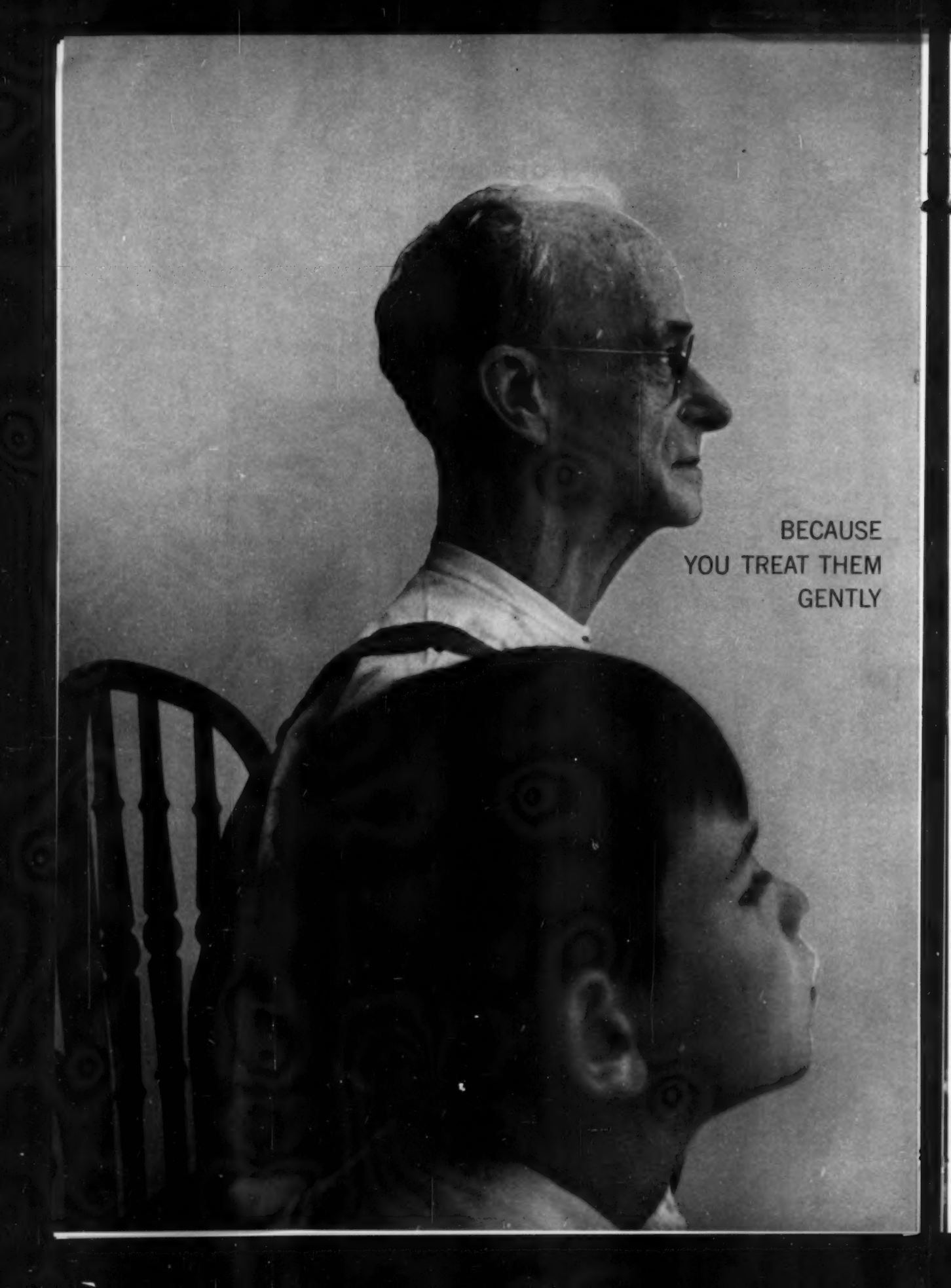
Supplied:

GITALIGIN 0.5 mg. Tablets—bottles of 30 and 100.



WHITE LABORATORIES, INC., KENILWORTH, NEW JERSEY

*DIMITROFF, S. P., ET AL.: ANN. INT. MED., 39:1199, 1953 • †WHITE'S BRAND OF AMORPHOUS GITALIN • ‡BIBLIOGRAPHY AVAILABLE ON REQUEST



BECAUSE
YOU TREAT THEM
GENTLY

*"In no case . . .
was there any rebound congestion."*¹

Your youngest patient as well as your oldest will find new Otrivin an unusually gentle yet remarkably effective nasal decongestant. Otrivin works quickly; its action is prolonged. Typical of many clinicians' reports is the one published by Kolodny¹: Of 64 patients studied, 92 per cent had good or excellent results. "In no case studied was there any rebound congestion. Local side effects were minimal. . . . Extremely few systemic effects occurred. . . ."

NEW
OTRIVIN[®] FOR GENTLE RELIEF OF STUFFY NOSE
ON PRESCRIPTION ONLY

Otrivin is safe even for the very young. "The particularly striking feature of Otrivin solution was the absence of side effects, even in infants as young as two weeks."² "It is effective in low concentrations and is a safe nasal vasoconstrictor for even the young patient."³

SUPPLIED: Otrivin *Nasal Solution*, 0.1%; dropper bottles of 1 ounce. Otrivin *Nasal Spray*, 0.1%; plastic squeeze tubes of 15 ml. Otrivin *Pediatric Nasal Spray*, 0.05%; plastic squeeze tubes of 15 ml.

REFERENCES: 1. Kolodny, A. L.: *Antibiotic Med.* 6:452 (Aug.) 1959. 2. Davis, M. R.: To be published. 3. Peluse, S.: In press.

Otrivin[®] hydrochloride (xylometazoline hydrochloride CIBA)

2/57990K

C I B A SUMMIT, N. J.

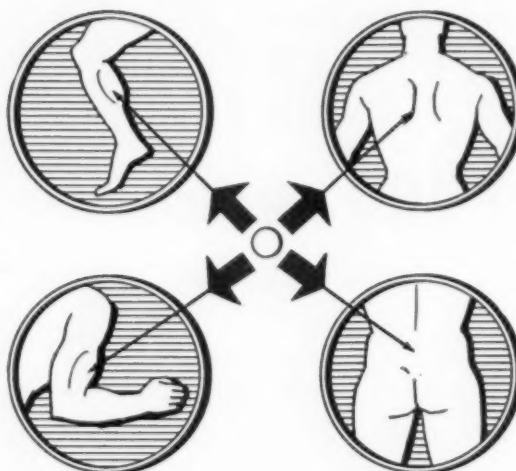
In Skeletal Muscle Spasm

Norflex^{TM*}

orphenadrine citrate

*acts quickly to restore mobility and
afford relief of associated pain*

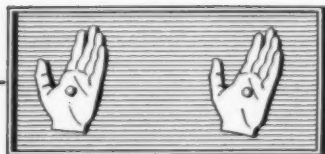
*Spasmolytic action
is prompt, and only the
muscle in spasm is re-
laxed...the patient is
spared impairment of
general muscle tonus.*



Patients can cooperate readily...the dosage is
easily remembered: just one tablet b.i.d.

Compare this with other spasmolytics requiring
from 4 to 30 tablets per day.

The action of Norflex is rapid and the effect
is prolonged. **SUPPLY:** White unscored
100 mg. tablets in bottles of 50.



Only one tablet b.i.d. for all
adults, regardless of age,
weight, sex, or spasm severity.



Northridge,
California

*Trademark U. S. Patent No. 2,567,251
Other Patents Pending



breakfast
on the run...
lunch
on the job...
time for

Myadec®

high potency vitamin-mineral formula

When dietary habits are poor, MYADEC helps prevent vitamin-mineral deficiencies by providing comprehensive nutritional supplementation. Just one capsule daily supplies therapeutic doses of nine important vitamins plus significant quantities of eleven essential minerals and trace elements.

Each MYADEC Capsule contains:

VITAMINS:

Vitamin B ₁₂ crystalline	5 mcg.
Vitamin B ₂ (riboflavin)	10 mg.
Vitamin B ₆ (pyridoxine hydrochloride)	2 mg.
Vitamin B ₁ mononitrate	10 mg.
Nicotinamide (niacinamide)	100 mg.
Vitamin C (ascorbic acid)	150 mg.
Vitamin A	(7.5 mcg.) 25,000 units
Vitamin D	(25 mcg.) 1,000 units
Vitamin E (d-alpha-tocopheryl acetate concentrate)	5 I.U.

MINERALS (as inorganic salts):

Iodine	0.15 mg.
Manganese	1.0 mg.
Cobalt	0.1 mg.
Potassium	5.0 mg.
Molybdenum	0.2 mg.
Iron	15.0 mg.
Copper	1.0 mg.
Zinc	1.5 mg.
Magnesium	6.0 mg.
Calcium	105.0 mg.
Phosphorus	80.0 mg.

Bottles of 30, 100, 250, and 1,000.

PARKE, DAVIS & COMPANY
DETROIT 32, MICHIGAN



801389

New Enzyme-controlled antifungal therapy to meet the growing challenge of Monilial Vaginitis

IN PREGNANCY / IN DIABETES / AFTER ANTIBIOTIC THERAPY—Today, monilial vaginitis is estimated to be a problem in at least 33 per cent of pregnant women and about 10 per cent of nonpregnant females¹—a rapidly increasing incidence attributed partly to the widespread use of antibiotics.

"Vanay" Vaginal Cream broadens the scope of specific therapy: (1) "Vanay" insures a continuous therapeutic fungistatic effect without danger of local reaction; (2) in addition, "Vanay" restores and maintains a physiologic pH and normal vaginal flora—reducing risk of reinfection.

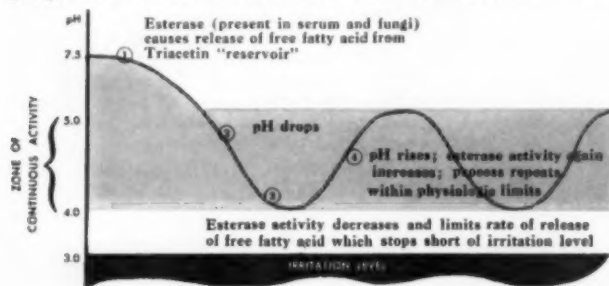
Effective response: Treatment was notably effective in moniliasis, as confirmed by symptomatic relief and post-treatment smears, Assali reports.² Marked clinical improvement was also noted in 154 of 206 patients, and in some cases symptoms subsided within a week of therapy.³

Other advantages: No monilial resistance demonstrated⁴ / prolonged duration of activity⁴ / nonsensitizing / nonirritating / nonstaining / odorless.

"VANAY" Vaginal Cream

BRAND OF TRIACETIN IN NONLIQUEFYING BASE

UNIQUE ENZYME-CONTROLLED FUNGISTASIS WITHOUT IRRITATION^{5,6}



Indications: specific in monilial vaginitis...adjunctive in trichomoniasis...also valuable in non-specific vaginitis where an acid pH must be restored and maintained.

Usual Dosage: 2 to 4 grams daily.

Supplied: No. 204-250 mg. Glyceryl triacetate per gram in a non-liquefying base. Combination package: 1½ oz. tube with 15 disposable applicators.

References: 1. Idson, B.: *Drug & Cosmetic Industry* 84:30 (Jan.) 1959. 2. Assali, N. S.: Personal communication. 3. Combined results of 18 clinical investigators, Medical Records, Ayerst Laboratories. 4. Kubista, R. A., and Derse, P. H.: *Antibiotics & Chemotherapy*, to be published. 5. Knight, S. G.: *J. Invest. Dermat.* 28:363 (May) 1957. 6. Knight, S. G.: *Antibiotics & Chemotherapy* 7:172 (Apr.) 1957.



AYERST LABORATORIES
New York 16, N.Y. • Montreal, Canada
5947



Patent Applications Pending



Coroner's Corner

A beautiful imported German apothecary jar will be sent to each contributor of an unusual case report.

A 43-year-old business executive was hospitalized for sudden abdominal pain, at first epigastric, later diffuse. There was no definite ulcer history but he had had several tarry stools in previous months, one hematemesis 3 weeks ago and nausea before meals for several weeks. He admitted drinking 2 double shots of whisky daily for the past 3 years and 3 pints of whisky in the previous 5 days. He bumped into a chair the evening prior to admission and then noticed a bulge at the site of a remote inguinal herniorrhaphy.

He was in shock, writhing with pain. The abdomen was distended, tense, tympanic and tender. X-ray showed pneumoperitoneum. Exploratory laparotomy was done, with a pre-operative diagnosis of perforated ulcer. The peritoneal cavity was full of intestinal contents and gas. No ulcer was found. Search disclosed a one inch linear tear in the ileum. This was repaired. The patient died in shock 8 hours later.

Autopsy did not reveal any degenerative, neoplastic or inflammatory disease to account for the ruptured ileum. There was no evidence



of external trauma in the surface tissues.

Direct trauma to the abdomen can cause rupture of distended intestine, even though the injury may not be of sufficient force to produce external contusion. The pathologist concluded that death was due to rupture of the ileum by direct, nonpenetrating injury, possibly as a result of bumping into the chair. Since the patient had "double indemnity" life insurance, the autopsy was of utmost importance to the widow.

A. J. SEGAL, M.D.
Cleveland, Ohio



Atopic dermatitis before treatment

NOW... to relieve inflammation fast

- ◆ mg. for mg. the most active steroid topically—up to 40 times the potency of hydrocortisone
- ◆ optimal not minimal steroid concentration for peak effectiveness . . . maximal contact at the site of the lesion
- ◆ stops the itch-scratch cycle to aid inflammation relief and maintain patient comfort day and night
- ◆ quick-acting broad antimicrobial activity when infection threatens recovery
- ◆ no irritating steroid particles, no sting, stain, smell, stickiness



After treatment

ACTUAL CLINICAL PHOTOGRAPHS

TOPICAL CREAM

NeoDecadron*



DEXAMETHASONE 21-PHOSPHATE—NEOMYCIN SULFATE

INDICATIONS: Allergic or inflammatory dermatoses, with or without pruritus; sunburn; insect bites; otitis externa (only if the drum is intact).

CAUTION: Steroids should not be used in the presence of tuberculosis of the skin.

DOSAGE: A small quantity of NeoDECADRON Topical Cream (0.1%) is applied to the affected area 2-3 times daily.

Additional information is available to physicians on request.

*NeoDECADRON and DECADRON are trademarks of Merck & Co., Inc.

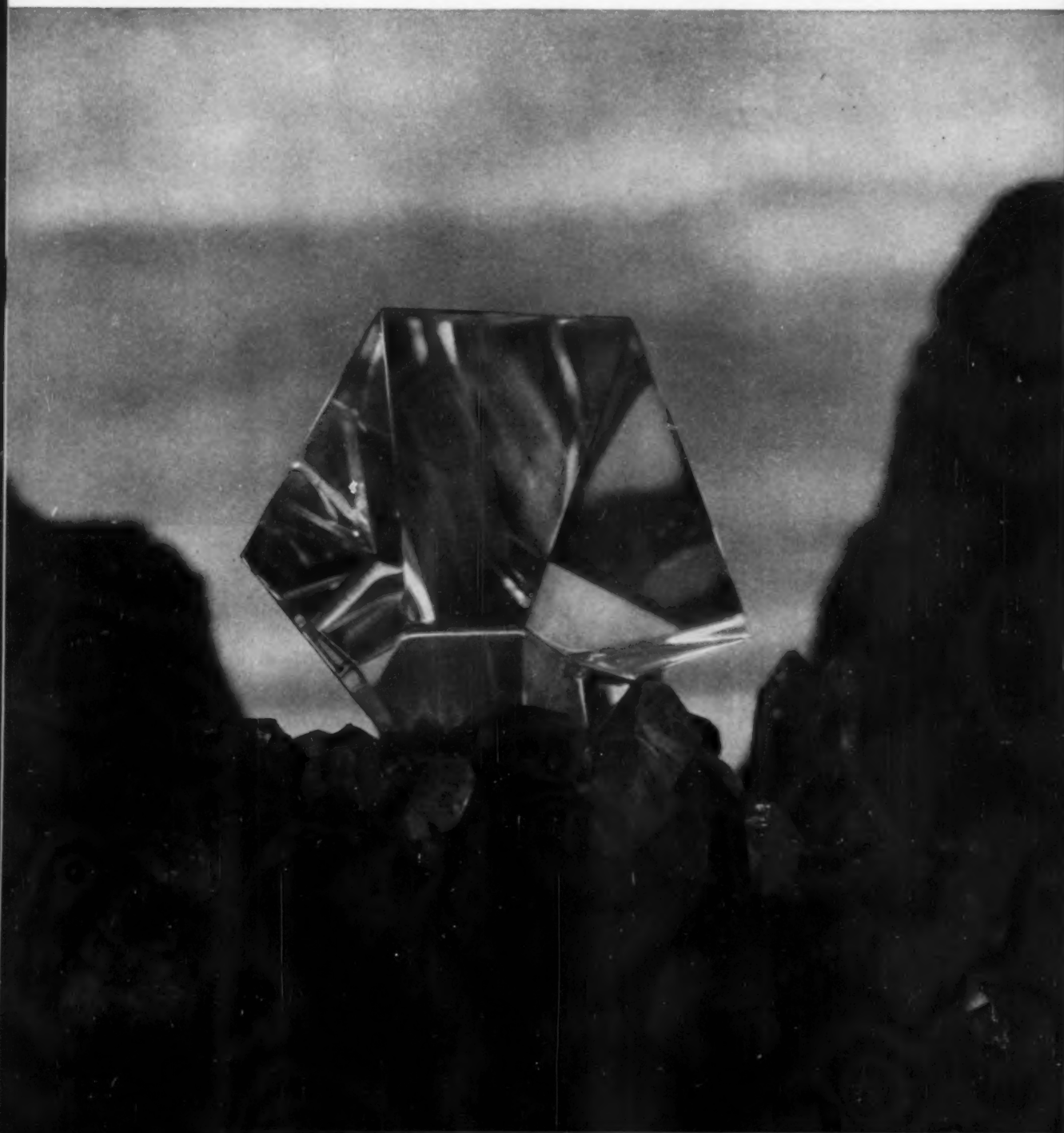
ACTIVE INGREDIENTS

Product	Steroid Concentration	Dexamethasone 21-Phosphate (as disodium salt)	Neomycin Sulfate	Supplied
NeoDECADRON Topical Cream	0.1%	1 mg./Gm.	5 mg./Gm. (equivalent to 3.5 mg. neomycin base)	5 Gm. (1/4 oz.) tube 15 Gm. (1/2 oz.) tube
DECADRON Phosphate	0.1%	1 mg./Gm.	—	5 Gm. (1/4 oz.) tube 15 Gm. (1/2 oz.) tube

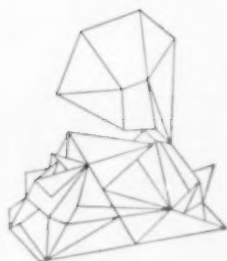


MERCK SHARP & DOHME Division of Merck & Co., Inc. • Philadelphia 1, Pa.

PURE ANTIHISTAMINE ACTION
NOW A PHARMACOLOGIC FACT
BECAUSE D̄ISOMER
SHEDS THE MOLECULAR DROSS



NEW...IN THE TREATMENT OF ALLERGIC DISORDERS



- "...high therapeutic index"¹
- unsurpassed clinical efficacy
- highly effective in exceptionally small doses
- side effects reduced to placebo level

Disomer....a major scientific advance in the pharmacology of antihistamines!

DISOMER was described as being "...as close to a pharmacologically pure form of histamine antagonist as the chemist can produce."¹ Incorporating the newest knowledge of structure-function relationships, DISOMER comes closest thus far to the therapeutic ideal of pure antihistamine activity. DISOMER represents the *d*-isomer of racemic brompheniramine maleate. In shedding the *l*-isomer a high point in clinical effectiveness is achieved while side effects are reduced to the placebo level.

Therapeutic results have been noteworthy with 94.7% effectiveness reported.² Equally noteworthy is the virtual absence of clinically significant adverse reactions. Indeed, the sole side effect reported was occasional, mild drowsiness in only 4.7% of patients.

With DISOMER your allergic patient remains your alert patient while enjoying unsurpassed freedom

from allergic symptoms. Ready now for your prescription—DISOMER is available in a variety of dosage forms to fit your patients' individual requirements.

Availability:

DISOMER CHRONOTAB®	6 mg.
DISOMER CHRONOTAB®	4 mg.
DISOMER Tablets	2 mg.
DISOMER Syrup	2 mg. per 5 cc.

Usual dosage:

6 mg. CHRONOTAB	b.i.d.
4 mg. CHRONOTAB	t.i.d.
2 mg. Tablet	q.i.d.
Syrup 1 teaspoonful	q.i.d.

*Chronotab  is White's repeat-action tablet.

References: (1) Gould, A. H. and Long, D. L.: Clinical Pharmacology and Therapeutic Use of Dexbrompheniramine Maleate (Disomer), a new Histamine Antagonist (submitted for publication). (2) Medical Department, White Laboratories, Inc.

WHITE LABORATORIES, INC.
Kenilworth, New Jersey



DISOMER

DEXBROMPHENIRAMINE MALEATE

...sheds the molecular dross

Therapeutic vitamins in the "therapeutic" jar

Any severe disease process undermines the nutritional integrity of tissue.¹ To counteract physiologic stress depletion of B and C vitamins, prescribe high potency STRESSCAPS . . . in burns . . . fractures . . . severe infection . . . surgery . . . and in chronic disorders such as arthritis, alcoholism or colitis.

The attractive STRESSCAPS jar also plays an important therapeutic role . . . reminding the patient of his daily dosage . . . assuring adequate intake for full metabolic support.

Each capsule contains:

Thiamine	
Mononitrate (B ₁)	10 mg.
Riboflavin (B ₂)	10 mg.
Niacinamide	100 mg.
Ascorbic Acid (C)	300 mg.
Pyridoxine HCl (B ₆)	2 mg.
Vitamin B ₁₂	4 mcgm.
Folic Acid	1.5 mg.
Calcium Pantothenate	20 mg.
Vitamin K (Menadione)	2 mg.

Average dose 1-2 capsules daily.

STRESSCAPS[®]

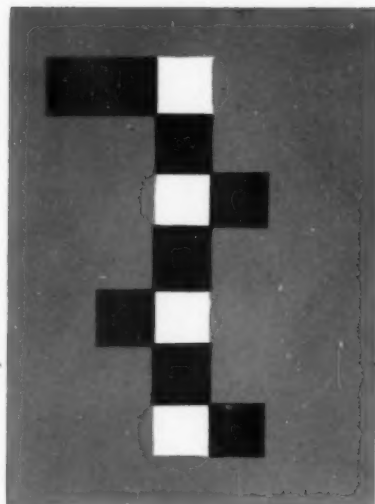
Stress Formula Vitamins Lederle



I. Spies, T. D.: J. A. M. A.
167:675 (June 7) 1958.



LEDERLE LABORATORIES, a Division of AMERICAN CYANAMID COMPANY, Pearl River, New York

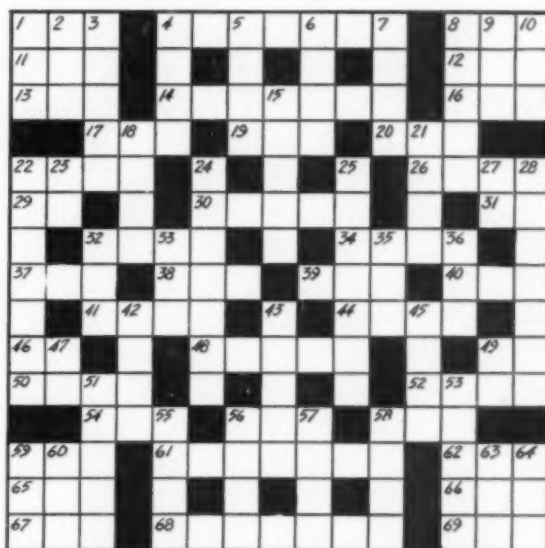


Medical Teasers

*A challenging crossword puzzle for the physician
(Solution on page 182a)*

ACROSS

1. Sick
4. Glucophospholipin found in the liver, spleen, muscles, blood and brain.
8. In the past
11. In dentistry, a cast of the mouth over which is made the blank of artificial denture
12. New (prefix)
13. Abbr. for electroencephalogram
14. A furrow, fold, or crease in the skin
16. Number of digits on hands of a normal person
17. An exclamation of delight or regret (Pl.)
19. Lixivium
20. A wreath
22. Festive
26. Abbr. for adrenocorticotrophic hormone
29. Before meals
30. Large pelvic bone
31. In proximity to
32. Popular inlay material (Dent.)
34. Olfactory organ
37. Visual organ
38. A suffix denoting that the element to the name of which it is attached is in combination in one of its lower valencies
39. A liquid of fatty consistency and unctous feel
40. Phenol source
41. A combining form meaning the back
44. A combining form noting defect of eye
46. Gr. euron (urine)
48. Bone healing
49. Chemical symbol of actinon
50. A prefix denoting half or partly
52. To stare or eye amorously
54. Auditory organ
56. U.N.'s Health Organ-



DOWN

58. Basal nomina anatomica (Abbr.)
59. A London surgeon noted for an operation overcoming fresh adhesions in the joints
61. Tube leading from the bladder
62. The lower extremity
65. The singular or reis
66. Pinna
67. American Dietetic Association
68. A nutritional disease of young birds
69. Upper limb
1. A suffix denoting a binary chemical compound
2. To assume a position of rest
3. German physician associated with cephalalgia
4. Maxilla and mandible
5. Structure consisting of series of windings
6. Type of retractor of the eye (Co Form)
7. Belgian physiologist and otologist (847 1920)
8. Ludicrous act
9. "To the right"
10. An egg, the seed of a plant
15. A prickly, puncture
18. An areola
21. Organs of hearing
22. Pertaining to most rarified state of matter
23. Anodal closure (Abbr.)
24. Of two days duration
25. The membrane around the fetus (Pl.)
27. Abbr. of tubercle bacillus
28. The fundamental unit of water
32. A substance that produces, or generates
33. Fortune
35. Abbr. for occipitolaevoposterior
36. A Greek letter
42. Denoting a kind of defect of the eye (Comb. Form)
43. Vision
45. Hematopoietic essential
47. Abbr. for right eye
49. Aluminum (Symb.)
51. The middle coat of an artery
53. Fascia over the skull
55. The gluteal region
56. A New York surgeon associated with appendicostomy
57. Unit of electrical resistance (Pl.)
58. Pouch or sac (Pl.)
60. One of the primary colors
63. Organ of hearing
64. Abbr. for gram

the **NEW CONTRACEPTIVE**
that offers
MAXIMUM
simplicity with security



when the "jelly-alone" method
is advised, **NEW Koromex**
the outstandingly competent
spermaticidal agent...
is now available
to physicians.

ACTIVE INGREDIENTS: IN A
SPECIAL BARRIER TYPE BASE
Boric Acid 2.0%
Polyoxyethylenononyl-
phenol 0.5%
Phenylmercuric
Acetate 0.02%

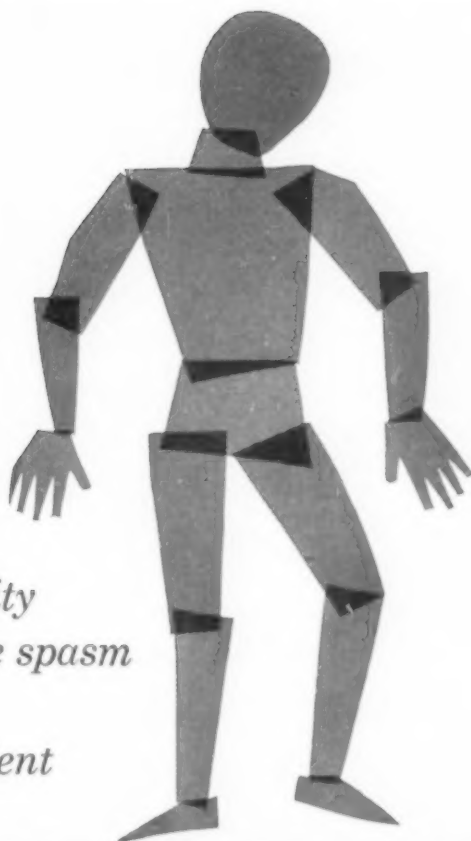


ANOTHER
H-R FIRST...

Large tube Vaginal
Jelly, 125 gms. with
patented measured
dose applicator in a
SANITARY PLASTIC
ZIPPERED KIT for
home storage (sup-
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Factual literature
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*relieves rigidity
and reduces muscle spasm
in the
parkinson patient*

PHENOXENE™

a new synthetic compound

"Chlorphenoxamine (Phenoxene) exerts a gentle yet potent action . . . a muscle relaxant action also an energizing and stimulating action, without induction of excitement or agitation. Patients are able to move faster and more freely and with greater strength and longer endurance. It helps to loosen rigid muscles, and it successfully counteracts akinesia, tiredness, and weakness."*

*Doshay, L. J., and Constable, K.: Treatment of Paralysis Agitans with Chlorphenoxamine Hydrochloride, J.A.M.A. 170:37 (May 2) 1959.

A REPRINT OF THE COMPLETE ARTICLE AND CLINICAL TRIAL SUPPLIES ARE AVAILABLE ON REQUEST.



PITMAN-MOORE COMPANY
DIVISION OF ALLIED LABORATORIES, INC. • INDIANAPOLIS 6, INDIANA



A NEW APPROACH
in treatment of
**"CHRONIC
SORE THROAT"**

often evidenced as chronic tonsillitis, glandular or hypertrophic pharyngitis

... without the penalties
of antibiotics or sulfonamides

BISTRIMATE[®]
(bismuth sodium triglycollamate)[†]

Smith

DRAMATIC RESULTS IN CASES RESISTANT TO OTHER THERAPY

**14 INDEPENDENT CLINICAL STUDIES PROVED
BISTRIMATE EFFECTIVE IN 89.1%
OF 395 PATIENTS WITH "CHRONIC SORE THROAT"**

BISTRIMATE—a unique bismuth salt, orally produces therapeutically effective systemic bismuth levels. Use of oral BISTRIMATE is safe, convenient and economical...eliminates injections. Emergence of antibiotic-resistant pathogens is prevented...with full freedom from antibiotic sensitization.

DOSAGE: In adults, 1 tablet t.i.d. for 2 or 3 days, then 1 or 2 tablets t.i.d. for a period of 7 to 10 days. In many patients excellent results are often obtained in less than 7 to 10 days.

SUPPLIED: Bottles of 100 and 1000 tablets. Each white scored tablet contains bismuth sodium triglycollamate 410 mg. (equivalent to 75 mg. elemental bismuth).

Literature and samples available on request.

† U.S. Patent No. 2,348,984



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FINE PHARMACEUTICALS

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over and above the rapid relief and improvement of symptoms
Decadron helps restore a "natural" sense of well-being

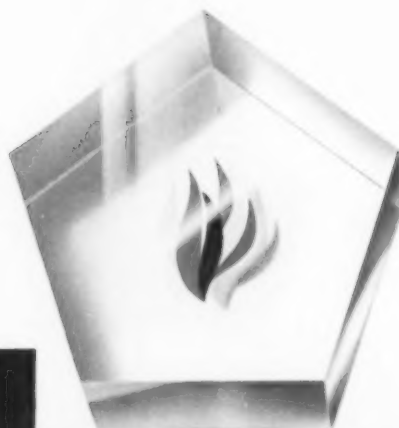
THE MOST EFFECTIVE OF ALL ANTI-INFLAMMATORY CORTICOSTEROIDS

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DEXAMETHASONE

treats more patients more effectively

the crowning
achievement of
the first
corticosteroid
decade



Decadron*

DEXAMETHASONE

treats more patients more effectively

Comprehensive and thorough clinical trials show that **DECADRON** on a milligram basis is the most effective of all oral corticosteroids ■ **DECADRON** is virtually free of sodium retention, potassium depletion, hypertension, or edema ■ **DECADRON** is virtually free of diabetogenic effect in therapeutic doses ■ **DECADRON** has not caused any new or unusual reactions ■ **DECADRON** helps restore a "natural" sense of well-being.

INDICATIONS: All allergic and inflammatory disorders amenable to corticosteroid therapy. **CONTRAINDICATIONS:** Herpes simplex of the eye is an absolute contraindication to corticosteroid therapy. **DECADRON** should be administered with the same precautions observed with other corticosteroid therapy. **DOSAGE AND ADMINISTRATION:** Transfer of patients from other corticosteroids to **DECADRON** may usually be accomplished on the basis of the following milligram equivalence:

one 0.75 mg. tablet of **Decadron*** (dexamethasone) replaces:

One 4 mg. tablet of	One 5 mg. tablet of	One 20 mg. tablet of	One 25 mg. tablet of
methylprednisolone or triamcinolone	prednisolone or prednisone	hydrocortisone	cortisone

SUPPLIED: As 0.75 mg. scored pentagon-shaped tablets. Also as 0.5 mg. tablets, to provide maximal individualized flexibility of dosage adjustment, since many patients achieve adequate control even on lower dosage.

Detailed literature is available on request.

* **DECADRON** is a trademark of Merck & Co., Inc.
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Division of Merck & Co., Inc., Philadelphia 1, Pa.

a new member of the Lederle
vitamin family...new cherry-flavored
...for infants and children



- Comprehensive multivitamin supplement designed for growing infants and active youngsters.
- Refreshing cherry taste, a flavor-favorite with children of all ages... no unpleasant aftertaste.
- Convenient to give—as syrup from the new push-button dispenser, or as pediatric drops from the 50 cc. bottle with handy calibrated dropper.

KEEPS them growing...and going...better!

VI-TYKE Syrup in 12 oz. dispenser can...no spilling—no mess.

Each tsp. (5 cc.) daily dose contains:

Vitamin A	
(Palmitate)	3,000 U.S.P. Units
Vitamin D	800 U.S.P. Units
Thiamine HCl (B ₁)	1.5 mg.
Riboflavin (B ₂)	1.5 mg.
Pyridoxine HCl (B ₆)	1 mg.
Ascorbic Acid (C)	40 mg.
Vitamin B ₁₂	3 mcgm.
Niacinamide	10 mg.
Pantothenic Acid (as Panthenol) ..	1 mg.
Methylparaben	0.08%
Propylparaben	0.02%

VI-TYKE®

Liquid Multivitamins Lederle

LEDERLE LABORATORIES, a Division of AMERICAN CYANAMID COMPANY, Pearl River, New York



In Coronary Insufficiency...

Your high-strung angina patient often expends a "100-yd. dash" worth of cardiac reserve through needless excitement.



Curbs emotion
as it boosts
coronary
blood supply

CONTROL OF EMOTIONAL EXERTION with Miltrate leaves him more freedom for physical activity.

IMPROVED CORONARY BLOOD SUPPLY with Miltrate increases his exercise tolerance.

Miltrate*

Miltown® (meprobamate) + PETN

Each tablet contains: 200 mg. Miltown and 10 mg. pentaerythritol tetranitrate.

Supplied: Bottles of 50 tablets.

Usual dosage: 1 or 2 tablets q.i.d. before meals and at bedtime. Dosage should be individualized.

 WALLACE LABORATORIES • New Brunswick, N. J.



CWL-0150-59 *TRADE-MARK



What's Your Verdict?

Edited by Ann Ledakowich, Member of the Bar of New Jersey

A young boy was taken to the doctor's office for the removal of his tonsils. He was a feeble-minded boy and physically below average. The tonsillectomy took place at ten o'clock in the morning and the boy was permitted to be taken home at three o'clock that afternoon.

The patient did not bleed very much for the first two hours after the operation, but the bleeding increased thereafter, until that evening the boy's mother became alarmed and called the physician. The boy was cold and clammy on the physician's first visit to the home, but when he returned for a second call, the child's color had improved and his skin was warm and moist. The physician assured the mother that her boy was alright.

At one o'clock the next morning the child's father returned home from work and found the child's pulse growing weaker and his lips turning blue. He immediately called the doctor, and was advised to go to the hospital with the child at once. When they arrived at the hospital, a nurse and intern attempted to revive the child, but without success. Nor was the physician able to do so when he arrived shortly thereafter.

A malpractice action was started against the physician for the death of the child.

The plaintiffs contend that the physician was negligent in permitting his patient to be returned home in a weakened condition, and in failing to use ordinary care to stop his bleeding. The physician was also negligent in



failing to either attend the child personally or to advise his parents that a nurse should be in attendance.

The physician testified that he could not definitely state the cause of death because permission for an autopsy was refused. However, in his opinion, the child was weak, malnourished, and lacked ability to coordinate; he had taken a good deal of water, and because of his weakness and lack of coordination he had drowned in his own vomit.

The jury returned a verdict in favor of the plaintiffs. On an appeal by the physician, his chief argument is that the jury should not be permitted to find that he negligently caused the death of the child when the cause of death was neither shown nor proven by the plaintiffs.

How would you decide this appeal?

Answer on page 214a



SYMPOSIUM REPORT:

ALTAFUR in antibiotic-resistant staphylococcal infections

ALTAFUR proved superior to any other single agent against staphylococcal infections encountered in the pediatric section of a general hospital. Introduced during an epidemic of severe staphylococcal pneumonia and bronchiolitis in younger children, ALTAFUR was employed in treating a total of 59 infants or juvenile patients, most of whom had upper or lower respiratory tract involvement. Almost all had been given antibiotics without effect; 34 were judged severely or critically ill. Cures were obtained in 54 of these patients after a 3 to 10 day course of ALTAFUR. There was only one failure (results were inconclusive in the remaining four cases). Mixed infections with *Pneumococcus* or *Streptococcus* sp. also responded readily.

ALTAFUR was administered orally in varying dosage: the optimal dose is believed to be about 22 mg./Kg. daily.

Side effects were minimal in these patients, being limited to gastric intolerance in a few cases, usually controllable by giving the drug with or after meals. Laboratory studies performed before and after ALTAFUR treatment revealed no adverse influence on renal, hepatic or hematopoietic function, nor other signs of toxicity.

In vitro, staphylococci isolated in this series proved uniformly susceptible to ALTAFUR, whereas many strains were resistant to a variety of antibiotics. With ALTAFUR as with all nitrofurans, the lack of development of significant bacterial resistance is considered a major advantage over other antimicrobials.

Lysaught, J. N., and Cleaver, W.: Paper presented at the Symposium on Antibacterial Therapy, Michigan and Wayne County Academies of General Practice, Detroit, Sept. 12, 1959 (published Nov., 1959)

bright new star
in the antibacterial firmament

ALTAFURTM

brand of furisidone

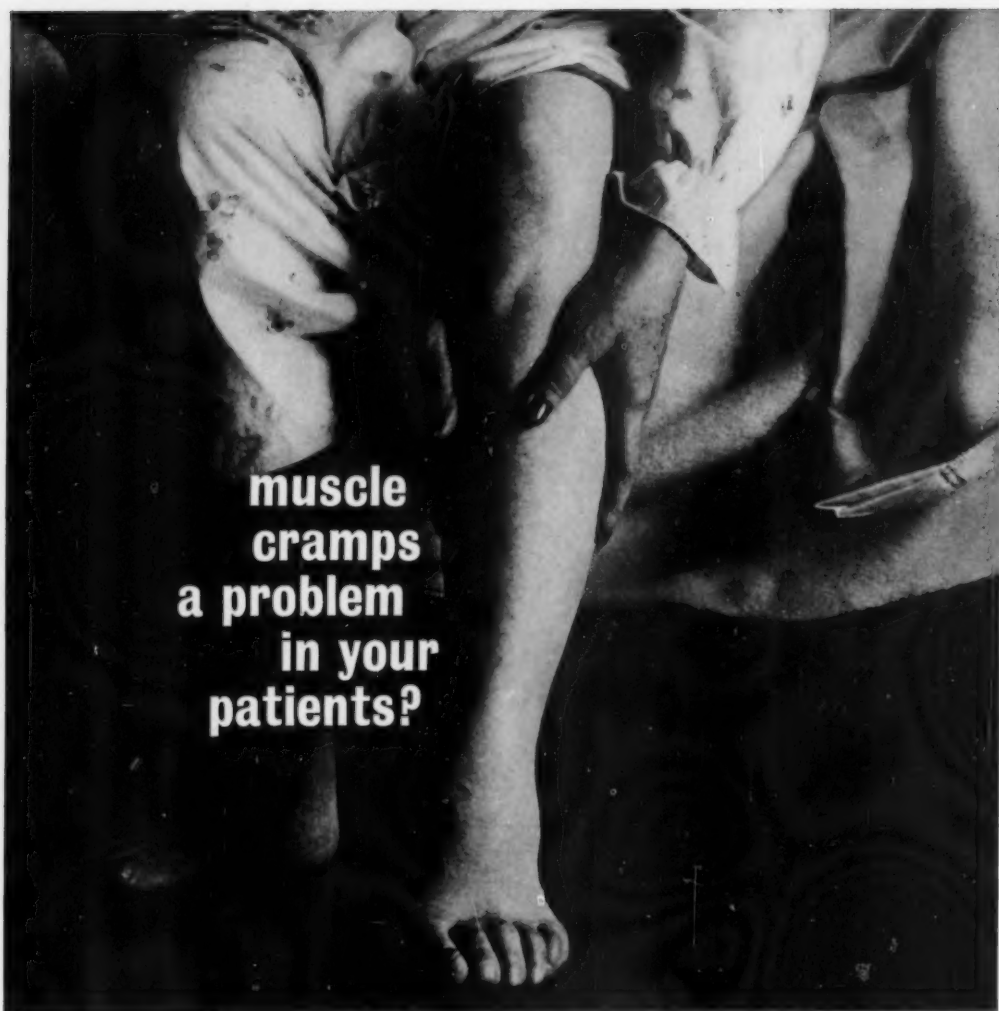
the first nitrofuran effective orally
in systemic bacterial infections

- Antimicrobial range encompasses the majority of common infections seen in everyday office practice and in the hospital
- Decisive bactericidal action against staphylococci, streptococci, pneumococci, coliforms
- Sensitivity of staphylococci in vitro (including antibiotic-resistant strains) has approached 100%
- Development of significant bacterial resistance has not been encountered
- Low order of side effects
- Does not destroy normal intestinal flora nor encourage monilial overgrowth (little or no fecal excretion)

Tablets of 50 mg. (pediatric) and 250 mg. (adult)
Average adult dose: 250 mg. four times a day, with food or milk
Pediatric dosage: 22-25 mg./Kg. (10-11.5 mg./lb. body weight daily
in 4 divided doses

CAUTION: The ingestion of alcohol in any form, medicinal
or beverage, should be avoided during Altafur therapy.

NITROFURANS—a unique class of antimicrobials
EATON LABORATORIES, NORWICH, NEW YORK



**muscle
cramps
a problem
in your
patients?**

now you can provide prompt, effective, safe relief with

new QUINAMM

specifically indicated for recumbent leg cramps

Of 200 subjects treated for nocturnal or recumbent leg cramps, "there was complete relief in one hundred and eighty-eight patients (94%)... Most patients were relieved with the first dose and those with severe cramps were relieved as quickly and as completely as those with mild symptoms."^{*†}

*Rawls, Wm. B.; Evans, W. L.; Mistretta, C. V., and D'Alessandro, F. M.: Nocturnal or Recumbency Muscle Cramps, *Medical Times* 87:818 (June) 1959.

Dosage: One tablet at bedtime. **Supply:** Bottles of 50 tablets. Each tablet supplies 4 grains (250 mg.) of quinine sulfate and 3 grains (200 mg.) of aminophylline. Rx required.

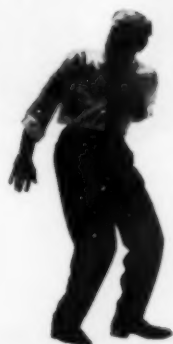
WALKER LABORATORIES, INC., MOUNT VERNON, NEW YORK

INTRODUCING

ISORDIL



a new
coronary vasodilator
of
unprecedented effectiveness
for
angina pectoris



- 1 rapid onset**
- 2 prolonged action**
- 3 consistent effect**
- 4 unusual safety**

ISORDIL significantly reduces the number, duration, and severity of anginal attacks, often when other long-acting coronary vasodilators fail. Exercise tolerance is increased, pain decreased, and the requirements for nitroglycerin either drastically curtailed or eliminated.

ISORDIL acts rapidly in comparison with other prophylactic agents, and patients usually experience benefits within 15 to 30 minutes. The effects of a single dose of ISORDIL persist for 4 to 5 hours. Thus, for most patients, convenient q.i.d. administration is highly satisfactory.

The only side effect observed has been transitory, easily controlled headache, normally considered an expression of effective pharmacodynamic activity.¹ The toxicity of ISORDIL is extremely low, approximately 50 times the therapeutic dose being required to produce toxic symptoms.

Sherber,² summarizing his experience with ISORDIL, states it is "the most effective medication for the treatment of coronary insufficiency available today."

ISORDIL



IVES-CAMERON COMPANY • New York 16, New York

Clinical and Laboratory Data Confirm Superiority

Succeeds where others fail:

Among 48 patients³ previously treated with other coronary vasodilators, chiefly pentaerythritol tetranitrate, ISORDIL was demonstrably superior in 37, equivalent in 9, and inferior in 2. Response of patients treated in all studies⁴ was 85% good, 7% fair, and 8% poor.

Markedly reduces number of anginal attacks:

Albert⁵ found that of 29 patients receiving ISORDIL, 25 responded well, 1 moderately well, and 1 not at all. Effectiveness could not be judged in 2 patients. For those who responded well, the frequency of anginal attacks was quickly reduced from a daily average of 5 to 1.2. Continued use of ISORDIL further reduced the frequency of attacks.

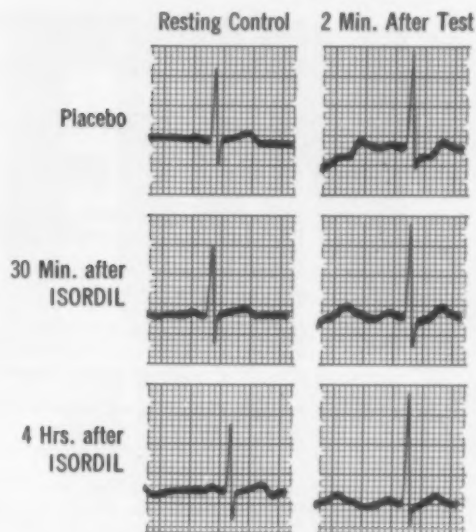
Increases tolerance to exercise and stress:

Electrocardiographic response following the Master two-step test has clearly established a more favorable balance between oxygen supply and demand to the myocardium with ISORDIL therapy. Eight of 10 patients administered ISORDIL in studies by Russek⁶ showed considerably less abnormality in the post-exercise electrocardiogram than before treatment.

Rapid onset and prolonged action a function of solubility and metabolism:

Pharmacologic studies indicate that the rapid onset and prolonged action shown by ISORDIL are related to its high solubility and low rate of metabolism.⁷ Incubation with liver slices suggest rapid absorption and delayed inactivation by the liver.

Master Test Responses (Lead V₄) in a 58-Year-Old Male with Angina Pectoris⁶



unprecedented effectiveness
in angina pectoris



Isosorbide Dinitrate, Ives-Cameron

^{*}Trademark

- NEW—for more effective control of angina pectoris
- Reduces number, duration, and severity of anginal attacks

***"Isordil is a new and effective agent for
therapy of angina pectoris."—Russek⁶***

Composition: Each white, scored tablet of ISORDIL (Isosorbide Dinitrate) contains 10 mg. of 1,4,3,6-dianhydro-sorbitol-2,5-dinitrate.

Action: Following oral administration of ISORDIL, the effects of coronary vasodilatation are apparent within 15 to 30 minutes and persist for 4 to 5 hours.

Indications: ISORDIL is indicated for the therapeutic and prophylactic management of angina pectoris and coronary insufficiency. It is often useful in patients only partially responsive to other long-acting coronary vasodilators.

Dosage: ISORDIL is administered orally. Average dose is one tablet (10 mg.) taken one half hour before meals and at bedtime. Individualization of dosage may be necessary for optimum therapeutic effect; dosage may vary from 5 mg. to 20 mg. q.i.d.

Side Effects: Side effects are few, infrequent, and mild. Transitory headache, common to effective nitrate or nitrite therapy, has occurred. This usually responds to administration of acetylsalicylic acid, and disappears with continued therapy. When headache is persistent, reduction in dosage may be required.

Caution: ISORDIL should be given with caution in patients with glaucoma.

Supplied: Bottles of 100.

References: 1. Riseman, J.E.F., et al.: *Circulation* 17:22-39 (Jan.) 1958. 2. Sherber, D.A.: Personal Communication (Oct., 1959). 3. Case Reports on File, Ives-Cameron Company (1958-1959). 4. Summary of Case Reports on File, Ives-Cameron Company (1958-1959). 5. Albert, A.: Personal Communication (Oct., 1959). 6. Russek, H.I.: Personal Communication (Oct., 1959). 7. Harris, E., et al.: Personal Communication (Oct., 1959).

ISORDIL



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IVES-CAMERON COMPANY • New York 16, New York



FOR THAT EXTRA MEASURE OF RELIEF
IN SEVERELY PAINFUL RHEUMATIC AND TRAUMATIC DISORDERS
NEW

PARAFON WITH CODEINE

The addition of the unrivaled analgesic potency of codeine phosphate to PARAFON provides the muscle relaxant-analgesic effect necessary in severely painful musculoskeletal disorders. In these conditions, PARAFON with Codeine^o assures long-lasting relief of pain, stiffness and disability on low, practical dosage. Side effects are rare and seldom severe enough to warrant discontinuation of therapy.

dosage: One to two tablets 3 or 4 times a day.

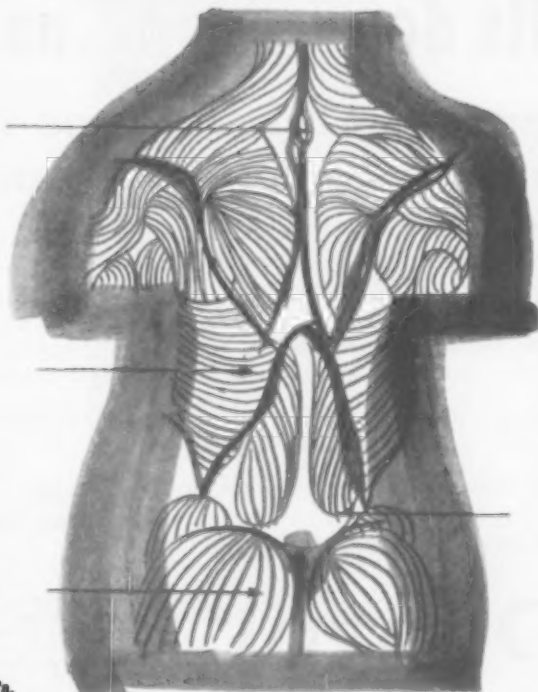
supplied: White, compressed tablets, imprinted McNEIL, bottles of 24. Each tablet contains: PARAFLEX[®] Chlorzoxazone* 125 mg., TYLENOL[®] Acetaminophen 300 mg., and codeine phosphate 15 mg.


*U. S. Patent Pending

^oNarcotic for which oral B is permitted 307A93

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McNeil Laboratories, Inc • Philadelphia 32, Pa.





An emotionally balanced patient. Thanks to your treatment and the help of Deprol, her depression is relieved and her anxiety and tension calmed. She eats well, sleeps well, and can return to her normal activities.

Lifts depression...as it calms anxiety!

Deprol helps balance the mood by lifting depression as it calms related anxiety

No "seesaw" effect of amphetamine-barbiturates and energizers


While amphetamines and energizers may stimulate the patient—they often aggravate anxiety and tension. And although amphetamine-barbiturate combinations may counteract excessive stimulation—they often deepen depression.

In contrast to such "seesaw" effects, Deprol lifts depression as it calms anxiety—both at the same time.

Safer choice of medication than untested drugs

Deprol does not produce hypotension, liver damage, psychotic reactions or changes in sexual function.

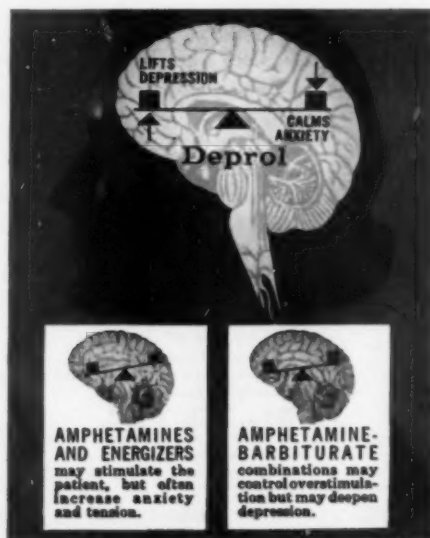
Deprol[®]

 WALLACE LABORATORIES
New Brunswick, N. J.

Dosage: Usual starting dose is 1 tablet q.i.d. When necessary, this may be gradually increased up to 3 tablets q.i.d.

Composition: 1 mg. 2-diethylaminoethyl benzilate hydrochloride (benactyzine HCl) and 400 mg. meprobamate.

Supplied: Bottles of 50 light-pink, scored tablets. Write for literature and samples.





AFTER HOURS

Photographs with brief description of your hobby will be welcomed. A conversation-piece desk ornament . . . an imported, wooden (handcarved) physician figurine . . . will be sent for each accepted contribution.

"Have you ever seen a beautiful woman wearing a beautiful orchid and wished that you could grow orchids like that?"

This question was recently put to us by Dr. Robert A. Douglas of Homestead, Florida. Since our answer was most definitely in the affirmative, Dr. Douglas went on to tell us about his favorite hobby.

"Raising orchids is as easy as raising roses and much more rewarding. Bringing a beautiful orchid plant to bloom is a thrill not easily forgotten. There are many kinds and colors, and most plants can be grown by beginners with only a minimum of equipment. In addition, orchid blooms stay fresh for days."

Raising orchids has been Dr. Douglas' hobby for five years, and it is easy to see why he recommends it to all flower lovers.

Dr. Douglas poses with some of his prized orchids. He maintains it isn't hard to raise plants which produce blooms like the one shown above.

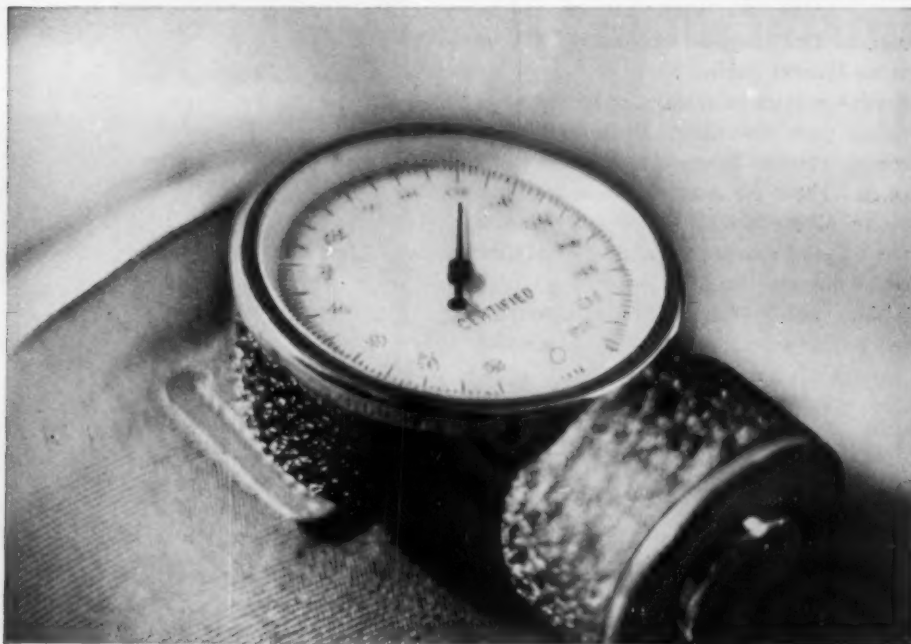


in hypertension— first rule out pheochromocytoma



Readily performed in the office unassisted, the reliable diagnostic test for pheochromocytoma with Regitine should be routine in hypertension. A potent antiadrenergic, Regitine is also valuable therapeutically in hypertensive crises and in peripheral vascular disease. A concise, illustrated booklet, *THE TEST WITH REGITINE FOR PHEOCHROMOCYTOMA*, is available at no charge. For your copy write: Medical Service Division, CIBA, Summit, New Jersey. SUPPLIED: *Ampule* (for intramuscular or intravenous use in diagnosis), each containing 5 mg. *Regitine* methanesulfonate in lyophilized form. *Tablets* for oral administration (white, scored), each containing 50 mg. Regitine hydrochloride.

Regitine
(phentolamine CIBA)



2/26179B

CIBA SUMMIT, NEW JERSEY

*tooth eruption without
family disruption*

oral **Corilin***

INFANT LIQUID

relieves discomfort and fretfulness of teething

CORILIN also offers simplified dropper-administered
management for cold symptoms,
postinoculation reactions,
pruritic conditions

*Tasty and acceptable to babies, each cc. of
raspberry-flavored CORILIN contains 0.75 mg.
CHLOR-TRIMETON® Maleate (chlorphenpyridamine
maleate), 80 mg. sodium salicylate and 25 mg.
glycine. Available in 30 cc. bottle with
calibrated plastic dropper.*



SCHERING CORPORATION • BLOOMFIELD, NEW JERSEY

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Schering

In the Treatment of Rheumatic Disorders Greater stability of maintenance dosage minimizes risks of hormonal imbalance

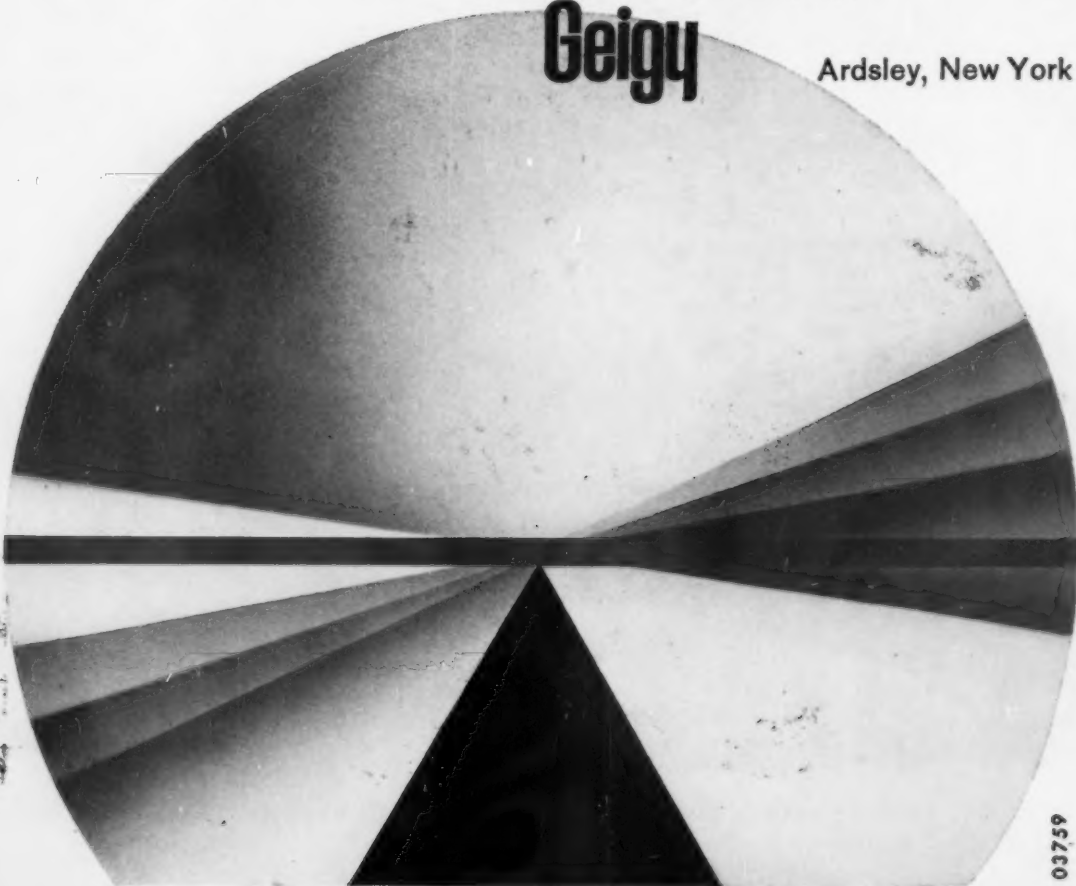
In Sterazolidin, the anti-inflammatory actions of prednisone and Butazolidin* are combined to permit lower effective dosage of each. Clinical experience has indicated that patients can be well maintained on this combination over prolonged periods with relatively low, stable dosage levels of each component, thus minimizing the problems arising from excessively high doses of corticosteroids. Other side effects have also been gratifyingly few. Antacid and spasmolytic components are contained in Sterazolidin capsules for the benefit of patients with gastric sensitivity.

Sterazolidin®: Each capsule contains prednisone 1.25 mg.; phenylbutazone 50 mg.; dried aluminum hydroxide gel 100 mg.; magnesium trisilicate 150 mg.; homatropine methylbromide 1.25 mg.

Detailed information available on request.

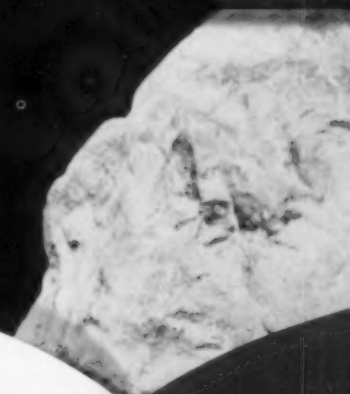
*Geigy's trademark for phenylbutazone—Reg. U. S. Pat. Off.

new Sterazolidin® Capsules
prednisone-phenylbutazone, Geigy
Geigy Ardsley, New York





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all day as
provided
has a right
sympathy
the Church
and virtue
each to bu
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09



IN COLDS, SINUSITIS, RHINITIS

RYNATAN®

KEEPS HEADS CRYSTAL CLEAR

...ry or night with a single oral dose and a remarkable lack of drowsiness.
...an effective, long-acting vasoconstrictor to decongest and clear all sin-
...ges and make breathing easier... plus two superior antihistamines acting
...g-effectively to combat allergic symptoms and also aid decongestion... as in
...traband Principle of oral repository release which prolongs therapeutic action
...usually eliminates side actions.

Each 5 cc. of suspension

Each 5 cc. of suspension
contains:


prothipridine hydrochloride
pseudoephedrine tartrate
pyramine tartrate
chlorpheniramine tartrate

5.0 mg.
12.5 mg.
2.5 mg.

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RYNATAN® EXPECTORANT

KEEPS THE WHOLE BREATHING APPARATUS CRYSTAL CLEAR

all day or night with a single oral dose and a remarkable lack of drowsiness and any other side effect.

Rynatan Expectorant is the only long-acting, non-narcotic, antitussive expectorant available. Provides the Rynatan formulation for fast, effective decongestion... plus a dependable, non-narcotic antitussive for prolonged suppression of non-productive cough... and an efficient bronchodilator to assist expectoration and removal of mucus accumulations... all in the Osmocone Principle of controlled respiratory release which prolongs therapeutic action and virtually eliminates side effect.

Each 5 cc. of caramel-flavored suspension contains: carbopentaria tannate (non-narcotic) 30 mg.; ephedrine tannate, 5 mg.; phenylephrine tannate, 5 mg.; chlorpheniramine tannate, 2 mg.; and pyrilamine tannate, 12.5 mg.

IRWIN, NEISLER & CO., DECATUR, ILLINOIS

Neisler



CLEAR

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controls cough for hours
alleviates congestion
all day/all night



*two prenatal supplements
especially for multiparas*

**The incidence of
anemia
is greater in
multiparas¹**

primigravidas

24%

anemic

multiparas

36.8%

anemic

to meet her greater needs for diet supplementation

Natalins[®] Comprehensive / Natalins[®] Basic

Vitamins and minerals, Mead Johnson

Vitamins and minerals, Mead Johnson

both extra generous in iron, ascorbic acid and calcium

In a study¹ of over a thousand obstetrical patients, anemia was found to occur with 50% greater frequency in multiparas than in primigravidas. And it was found that anemia often indicates other nutritional deficiencies as well . . . Natalins Comprehensive tablets supply 12 vitamins and minerals and Natalins Basic tablets

supply 4 vitamins and minerals . . . both are formulated to meet the special needs of multiparas by supplying generous amounts of elemental iron (40 mg. per tablet), ascorbic acid (100 mg. per tablet) and calcium (250 mg. per tablet).

Convenient, one-a-day tablet dosage.



Mead Johnson

Symbol of service in medicine

1. Traynor, J. B., and Torpin, R.: Am. J. Obst. & Gynec. 61: 71-74 (Jan.) 1951

NA-1059M



waterloo for an ulcer...

Napoleon exhibited ulcer symptoms through most of his adult life, yet he scorned medication for his everlasting "spasms of nervous origin." He ignored his infirmities with violent naïveté despite an intense interest in medical science. Thus, the classic hand-in-coat pose may have been the result of his paroxysms of gastric pain that sliced "like the stab of a penknife."

When your patient is besieged with an ulcer, Robins provides you with an armamentarium sufficient to repel it.

frontal assault—If your tactics dictate Local Action, try ROBALATE,[®] which is dihydroxy aluminum aminoacetate (0.5 Gm. per tablet or 5 cc.), an antacid of definitely superior efficacy.

encirclement—If you prefer to approach the ulcer Systemically, prescribe DONNATAL,[®] the antichol-

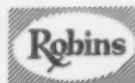
inergic-antispasmodic-sedative with the time-tested *natural* belladonna alkaloids and phenobarbital, a veteran campaigner without peer. FORMULA: hyoscyamine sulfate, 0.1037 mg.; atropine sulfate, 0.0194 mg.; hyoscine hydrobromide, 0.0065 mg.; and phenobarbital (1/4 gr.), 16.2 mg.

multi-pronged attack—If you relish the strategy of combining antacid and antispasmodic-anticholinergic effects, use DONNALATE[®]. It combines one-half of a DONNATAL tablet with one ROBALATE, ideal allies for comprehensive ulcer therapy.

Victory will be yours.

A. H. ROBINS CO., INC. • RICHMOND, VA.

DONNALATE[®]





Who Is This Doctor?

Identify the famous physician from clues in this brief biography

He was born on August 31, 1821, at Potsdam, Germany, the eldest son of a school teacher. He attended the school and gymnasium there, and later studied medicine in the Friedrich Wilhelm Institute in Berlin.

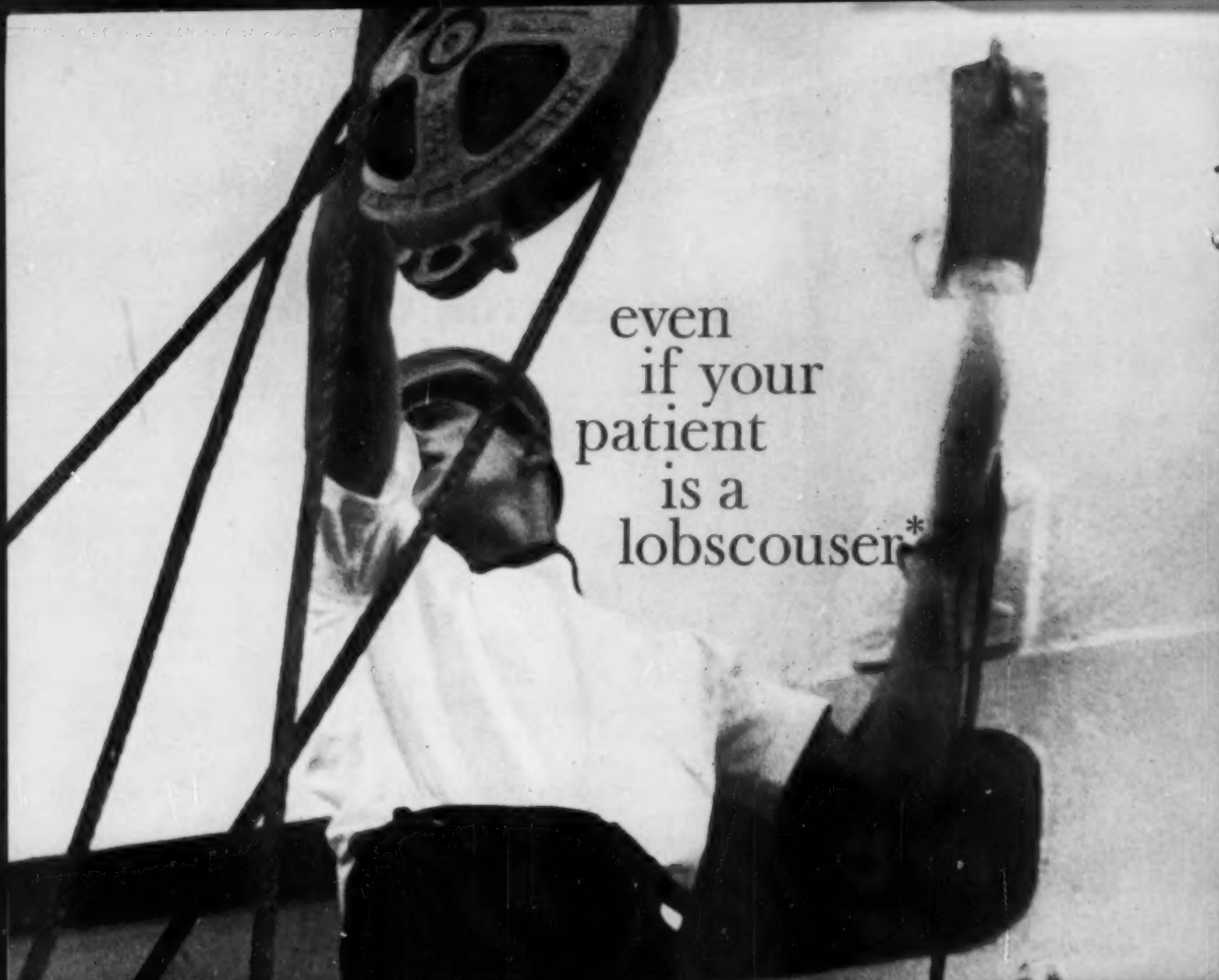
His parents were not wealthy. But the Institute trained future military doctors for low tuition if they passed the entrance examination.

From 1843 to 1848 he was an army doctor in Potsdam. He was professor of physiology, first in Königsberg, then in Bonn and later in Heidelberg. In 1871 he occupied the chair of physics in Berlin and in 1887 added the post of director of the physiochemical institute at Charlottenburg near Berlin. He held these two positions until his death on September 8, 1894.

He married when he was in Königsberg and upon the early death of his first wife remarried in Heidelberg.

His investigations occupied almost the whole field of science, from physiology to mechanics. His wide range of gifts included a rare aptitude for mathematics and the ability to deduce the presence of unknown natural phenomena from known. His epoch-making paper on the conservation of force was read to the Physical Society in Berlin in 1847.

In 1851 he invented the ophthalmoscope. He investigated the optical constants of the eye. With the aid of his invention, the ophthalmometer, he measured the curvatures of the crystalline lens for the near and far vision. He explained the mechanism of accommodation, discussed the phenomena of color vision. One of his greatest contributions was his attempt to account for our perceptions of the quality of sound. In the later years of his life he worked on the conservation of energy, hydrodynamics, theories of electricity, optics, meteorological physics. Can you name this doctor? Answer on page 214a.



even
if your
patient
is a
lobscouser*

he'll be under way again soon, once he's on

PARAFON®

(PARAFLEX® + TYLENOL®)

for muscle relaxation plus analgesia

and in arthritis

PARAFON® with Prednisolone



McNeil Laboratories, Inc. • Philadelphia 32, Pa.

prescribe PARAFON in low back pain—sprains—
sprains—rheumatic pains

Each PARAFON tablet contains:

PARAFLEX® Chlorzoxazone† 125 mg.

Specific for skeletal muscle spasm

TYLENOL® Acetaminophen 300 mg.

The analgesic preferred in musculoskeletal pain

Dosage: Two tablets t.i.d. or q.i.d.

Supplied: Tablets, scored, pink, bottles of 50.

Each PARAFON WITH PREDNISOLONE tablet contains:

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that apply to all steroids should be kept in mind
when prescribing PARAFON WITH PREDNISOLONE.

*sailor

†U. S. Patent Pending

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headache and fever
tearing eyes
coughing
sneezing
running nose
sore throat
earache
sinusitis



IN UPPER RESPIRATORY INFECTIONS

COSA-TETRACYDIN*

glucoamine-potentiated tetracycline—analgesic—antihistamine compound

CAPSULES

- *Quick, symptomatic relief*
- *Effective in the control and prevention of secondary complications*

Each capsule provides:

Cosa-Tetracyclin	125 mg.
phenacetin	120 mg.
caffeine	30 mg.
salicylamide	150 mg.
bucizine HCl	15 mg.

Additional information on Cosa-Tetracydin
is available from the Medical Department
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a new concept
for
weight control
from
Mead Johnson



measured calories for adequate nutrition
with high satiety on 900 calories a day...
without appetite depressants

METRECAL[®]

DIETARY FOR WEIGHT CONTROL

no appetite depressants needed

Metrecal permits your patients to control their weight—effectively, comfortably, safely, by the application of sound nutritional principles *alone*.

adequate nutrition on 900 calories

Metrecal is a scientifically blended powder consisting of protein, carbohydrate and fat plus vitamins and minerals. One half-pound, the daily feeding, supplies 900 calories. It mixes readily with water to make a pleasant-tasting beverage.

encourages patient cooperation

A gratifying feature is its high satiety value. Overweight patients placed on Metrecal alone comment on the absence of hunger, an improved sense of well-being and stepped-up motivation to lose weight.¹

Patients welcome the convenience of Metrecal—no complex menus to plan, no calories to count, no foods to measure and weigh. It's so easy to use and easy to prepare. All they do is mix one-half pound of Metrecal with a quart of water to a creamy, palatable smoothness with a fork, eggbeater or blender—add flavoring if desired, refrigerate and serve. This makes the complete 900-calorie daily feeding—36 fluid ounces of nutritious, sustaining Metrecal beverage—which provides a large glass for each meal and at bedtime.

clinical reports encouraging

In a study¹ of 100 patients on the 900-calorie daily Metrecal program for periods up to twelve days, an average weight loss of 6½ pounds per patient was shown. In another report,² overweight patients on this program for periods from two to thirty weeks, showed losses of 3 to 5 pounds per week initially. Thereafter, weight reduction continued at an average weekly rate of 2 to 2½ pounds per patient. Taste acceptance, gastrointestinal toleration and satiating properties were impressive.

flexibility in use

When more than 900 calories are permitted, the daily allotment (½ pound) of Metrecal may be increased—or it may be used with low-calorie foods.

special Metrecal weight-control guide

This instructive booklet, for distribution to your patients, will simplify giving instructions and help encourage patient cooperation. Ask your Mead Johnson representative for your supply.

(1) Antos, R. J., to be published. (2) Tullis, I. E., to be published.



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COUGH



COUGH



COUGH

STOPPED

ROMILAR CF raises the cough-reflex threshold in 15 to 30 minutes and sustains relief for as long as six hours—without undue side effects, without narcotic hazards or complications. ROMILAR CF treats the entire cough and cold complex: dextromethorphan (ROMILAR) controls the cough, chlorpheniramine combats allergic manifestations, phenylephrine reduces nasal and bronchial congestion, N-acetyl-p-aminophenol relieves headache and myalgia and reduces fever. Infection, allergy, bronchitis, excessive smoking—whatever the cause, prescribe ROMILAR CF for cough.

For convenient use away from home, also available in capsule form.

When only the specific antitussive action of dextromethorphan is indicated, prescribe ROMILAR—Syrup, Tablets or Expectorant.

Romilar® Hydrobromide—brand of dextromethorphan hydrobromide.

ROMILAR CF

the complete treatment for cough and other cold symptoms

SYRUP

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Now
in inflammatory anorectal disorders...

The Promise of Greater Relief

the first suppository to contain
hydrocortisone for effective control of proctitis

- Proctitis accompanying ulcerative colitis
- Radiation proctitis
- Postoperative scar tissue with inflammatory reaction
- Acute and chronic nonspecific proctitis
- Acute internal hemorrhoids
- Medication proctitis
- Cryptitis



Ulcerative Colitis



Radiation Proctitis



Postoperative
Scar Tissue

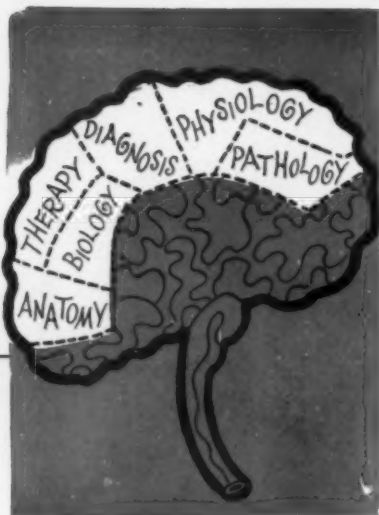
Supplied: Suppositories, boxes of 12. Each suppository contains 10 mg. hydrocortisone acetate, 15 mg. extract belladonna (0.19 mg. equiv. total alkaloids), 3 mg. ephedrine sulfate, zinc oxide, boric acid, bismuth oxyiodide, bismuth subcarbonate, and balsam peru in an oleaginous base.

Wyanooids[®] HC

Rectal Suppositories with Hydrocortisone, Wyeth



Philadelphia 1, Pa.



Mediquiz

These questions were prepared by the Professional Examination Service, a division of the American Public Health Association. Answers will be found on page 214a.

1. The third plane of the third stage of surgical anesthesia is characterized by:

A) Slow regular respiration, slightly dilated pupils, marked movement of the eyeballs and the presence of corneal reflexes.

B) Irregular thoracic breathing, widely dilated pupils, marked movement of the eyeballs and the presence of corneal reflexes.

C) Weak, shallow respiration, completely dilated pupils, the absence of all reflexes, impalpable radial pulses and low blood pressure.

D) Normal respiration, normal pupillary size, slight movements of the eyeballs and slight corneal reflexes.

E) Deep abdominal respiration, dilated pupils, absence of eyeball movement and absence of corneal reflexes.

2. The chief danger in the administration of vinyl ether is:

A) Myocardial depression.

B) Anoxia.

C) Liver damage.

D) Explosion.

E) Myocardial irritation.

3. Maintenance of digitalization is difficult with lanatoside C because it:

A) Is poorly absorbed from the gut.

B) Is harmful to veins.

C) Causes excessive nausea and vomiting.

D) Tends to promote arrhythmias.

E) Is rapidly excreted.

4. In childhood, the normal alkaline phosphatase activity of the serum is:

A) Too little to be measured.

B) Higher in girls than in boys.

C) Somewhat above adult levels.

D) Below adult levels.

E) Higher in boys than in girls.

5. The normal range of plasma-bound iodine, expressed in micrograms per 100 cc. plasma, is generally considered to be:

A) 0.5-1

B) 1-2.5

C) 3.5-10

D) 8.5-15

E) 12-22

6. In the electrocardiogram the p wave represents:

A) Auricular fibrillation.

B) Contraction of the ventricles.

C) Depolarization of the auricles.

D) Depolarization of the ventricles.

E) Heart block.

7. The most common cardiac disturbance incurred in overdigitalization is:

A) Bigemini.

B) Heart block

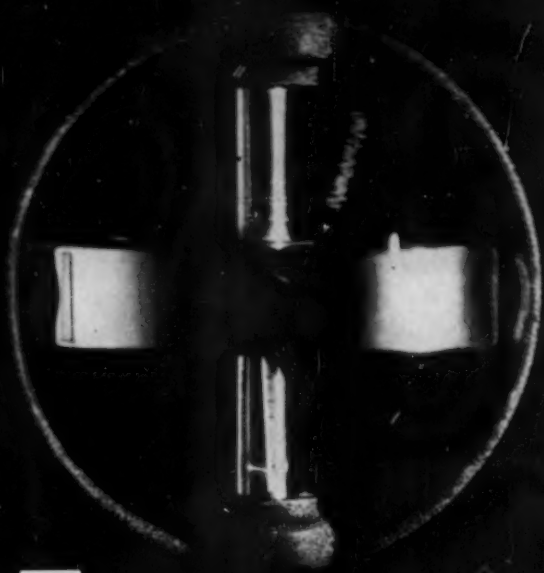
C) Ventricular tachycardia.

D) Auricular fibrillation.

E) Sinus tachycardia.

Concluded on page 80a

minimal disturbance
of the patient's chemical and psychic balance...



*still unsurpassed
for total
corticosteroid
benefits*

Ar1S

Substantiated by published reports of leading clinicians:

- effective control
of allergic
and
inflammatory symptoms¹⁻²⁰
- minimal disturbance
of the patient's
chemical and psychic
balance^{1, 4, 5, 8-19}

tocort[®]

Triamcinolone LEDERLE

At anti-inflammatory and antiallergic levels ARISTOCORT means:

- freedom from salt and water retention
- virtual freedom from potassium depletion
- negligible calcium depletion
- euphoria and depression rare
- no voracious appetite—no excessive weight gain
- low incidence of peptic ulcer
- low incidence of osteoporosis with compression fracture

Indications: rheumatoid arthritis; arthritis; respiratory allergies; allergic and inflammatory dermatoses; disseminated lupus erythematosus; nephrotic syndrome; lymphomas and leukemias. *Precautions:* With ARISTOCORT all traditional precautions to corticosteroid therapy should be observed. Dosage should always be carefully adjusted to the smallest amount which will suppress symptoms. After patients have been on steroids for prolonged periods, discontinuance must be carried out gradually.

Supplied: Scored tablets of 1 mg. (yellow); 2 mg. (pink); 4 mg. (white); 16 mg. (white). Diacetate Parenteral (for intra-articular and intrasynovial injection). Vials of 5 cc. (25 mg./cc.).

References: 1. Feinberg, S.M., Feinberg, A.R., and Fisherman, E.W.: *J.A.M.A.* 167:58 (May 3) 1958. 2. Epstein, J.I. and Sherwood, H.: *Connecticut Med.* 22:222 (Dec.) 1958. 3. Friedlaender, S. and Friedlaender, A.S.: *Antibiotic Med. & Clin. Ther.* 5:315 (May) 1958. 4. Segal, M.S. and Duveney, J.: *Bull. Tufts North East M. Center* 4:71 (April-June) 1958. 5. Segal, M.S.: Report to the A.M.A. Council on Drugs, *J.A.M.A.* 169:1063 (March 7) 1958. 6. Sherwood, H. and Cooke, R.A.: *J. Allergy* 28:97 (Mar.) 1958. 7. Duke, C.J. and Oviedo, R.: *Antibiotic Med. & Clin. Ther.* 5:710 (Dec.) 1958. 8. McGavack, T.H.: *Clin. Med.* (June) 1958. 9. Freyberg, R.H.; Bernstein, C.A., and Hellman, L.: *Arthritis and Rheumatism* 1:215 (June) 1958. 10. Hartung, E.F.: *J.A.M.A.* 167:973 (June 21) 1958. 11. Hartung, E.F.: *J. Florida Acad. Gen. Pract.* 8:18, 1958. 12. Zuckner, J.; Ramsey, R.H.; Caciolo, C., and Conner, G.E.: *Ann. Rheum. Dis.* 17:398 (Dec.) 1958. 13. Appel, B.; Tye, M.J., and Leibsohn, E.: *Antibiotic Med. & Clin. Ther.* 5:716 (Dec.) 1958. 14. Kaln, F.: *Canad. M.A.J.* 79:400 (Sept.) 1958. 15. Mullins, J.F., and Wilson, C.J.: *Texas State J. Med.* 54:648 (Sept.) 1958. 16. Shelley, W.B.; Harun, J.S., and Pillsbury, D.M.: *J.A.M.A.* 167:959 (June 21) 1958. 17. DuBois, E.F.: *J.A.M.A.* 167:1590 (July 26) 1958. 18. McGavack, T.H.; Koo, K.T.; Leake, D.A.; Bauer, H.G., and Berger, H.E.: *Am. J. Med. Sc.* 236:720 (Dec.) 1958. 19. Council on Drugs: *J.A.M.A.* 169:257 (Jan. 17) 1959. 20. Rein, C.R.; Fleischmajer, R., and Rosenthal, A.R.: *J.A.M.A.* 165:1821 (Dec. 7) 1957.



LEDERLE LABORATORIES, A Division of AMERICAN CYANAMID COMPANY, Pearl River, New York

8. Which of the following muscles forms an integral part of the anterior tonsillar pillar?

- A) Levator palatini.
- B) Palatopharyngeus.
- C) Stylopharyngeus.
- D) Palatoglossus.
- E) Cricopharyngeus.

9. The etiology of median rhomboid glossitis is:

- A) Rhinoscleroma.
- B) Penicillin troches.
- C) Unknown.
- D) Tuberculosis.
- E) Syphilis.

10. Many surgeons prefer not to remove the sternohyoid muscles in a total laryngectomy because:

A) They play a great part in the movements of the hyoid bone.

B) Their removal interferes with the movement of the tongue, whose muscles are inserted in the hyoid bone.

C) They afford protection to the thyroid gland.

D) They are useful in forming a firm closure of the pharynx.

E) Their vascular supply also supplies the hyoid bone whose circulation is already diminished by the large dissection.



more
diabetic
patients
enjoy
comfort,
convenience,
better
regulation
with
effective



DBI

the only "full-range" oral hypoglycemic agent

11. The Addis count of a patient who had had a severe sore throat 3 weeks before, and who had taken sulfadiazine, was recorded as follows: 3,700 casts. 360,000 red cells. 742,000 white cells.

Which one of the following diagnoses would this count indicate?

- A) No disease.
- B) Acute lupus erythematosus.
- C) Acute hemorrhagic nephritis.
- D) Obstructive tubular disease.
- E) Pyelonephritis.

12. Macewen's sign, an increased resonance on percussion of the skull, is most commonly positive in:

- A) Pansinusitis and mastoiditis.
- B) Skull fracture.
- C) Internal hydrocephalus and cerebral abscess.
- D) Cavernous sinus thrombosis.
- E) Brain tumor and meningitis.

13. Deep-seated pain in the ear and mastoid region, with herpes of the auricle, external auditory canal, and tonsillar region, and often lymphocytosis of the cerebrospinal fluid, indicates inflammation of the:

- A) Trigeminal ganglion.
- B) Ganglion of Auerbach.
- C) Geniculate ganglion.
- D) Gasserian ganglion.
- E) Acoustic ganglion.

(Answers on page 214a)

MEDIQUIZ REPRINTS AVAILABLE

Through the cooperation of the Professional Examination Service, Division of the American Public Health Association, special reprints of 150 Mediquiz questions and answers are now available in booklet form for \$1 per copy. To stimulate further study, the source of each answer is listed in the booklet. The supply of booklets is limited. To be certain you'll have a copy, send your dollar now to the Professional Examination Service Department MT-12, American Public Health Association, 1790 Broadway, New York City 19, New York.

DBI

trade mark, brand of Phenformin

the "full-range" oral hypoglycemic agent...
lowers blood sugar in mild, moderate, and
severe diabetes, in children and adults

FOR MORE DEPENDABLE RESPONSE, start your patients on DBI—entirely different from the sulfonylureas in chemical structure, mode of action and spectrum of activity... usually effective in low dosage range (50 to 150 mg. per day).

3 out of every 4 stable adult diabetics are satisfactorily and comfortably regulated with DBI.

2 out of every 3 brittle diabetics (juvenile or adult) enjoy better stabilization and easier management with combination of DBI and injected insulin. The smooth, gradual onset of blood-sugar lowering action helps prevent dangerous shifts between hypoglycemic reactions and hyperglycemic ketoacidosis.

sulfonylurea failures—secondary failures and primary resistant patients may respond to DBI alone, or combined with a sulfonylurea.

no clinical toxicity in over 3000 patients studied closely for varying periods up to nearly three years.

On a "start-low-go-slow" dosage pattern, DBI is relatively well tolerated. Gastrointestinal reactions occur most frequently in dosages exceeding the practical maximum 150 mg. daily, but abate promptly upon reduction of dosage or withdrawal of DBI.

The physician prescribing DBI should be thoroughly familiar with its indications, dosage, possible side effects, precautions and contraindications, etc.

DBI (N¹-β-phenethylbiguanide HCl) is available as white, scored tablets of 25 mg. each, bottle of 100.

Write for detailed literature.

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Engran "Term-Pak"
SQUIBB VITAMIN-MINERAL SUPPLEMENT

(270 TABLETS)



calling for one tablet a day will
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 This means you are assured of a
 nutritionally perfect pregnancy,
 and she realizes major savings.*

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* *And when baby comes, specify Engran baby drops — full vitamin support in half the volume of most similar preparations — lasts twice as long. Supplied in 15 cc. and 50 cc. bottles. Convenient 'Flexidose' Dropper assures accurate dosage.*

*for
the
tense
and
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patient*



relief comes fast and comfortably

- does not produce autonomic side reactions
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Usual Dosage: One or two 400 mg. tablets t.i.d.

Supplied: 400 mg. scored tablets, 200 mg. sugar-coated tablets or as MEPROTABS®—400 mg. unmarked, coated tablets.

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meprobamate (Wallace)



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NOW

*...a new way
to relieve pain
and stiffness
in muscles
and joints*

indicated in:

MUSCLE STIFFNESS

LUMBOSACRAL STRAIN

SACROILIAC STRAIN

WHIPLASH INJURY

BURSITIS

SPRAINS

TENOSYNOVITIS

FIBROSITIS

FIBROMYOSITIS

LOW BACK PAIN

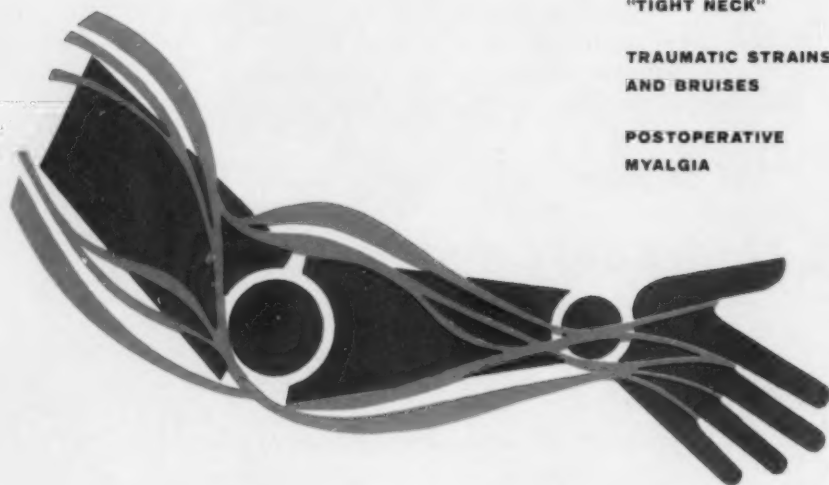
DISC SYNDROME

SPRAINED BACK

"TIGHT NECK"

TRAUMATIC STRAINS
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- Exhibits unusual analgesic properties, different from those of any other drug
- Specific and superior in relief of SOMATIC pain
- Modifies central perception of pain without abolishing natural defense reflexes
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SOMATM

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- More specific than salicylates
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SOMA has an unique analgesic action. It apparently modifies central pain perception without abolishing peripheral pain reflexes. **SOMA** is particularly effective in relieving joint pain. Patients say that they feel better and sleep better with **SOMA** than with previously used analgesic, sedative or relaxant drugs.

SOMA also relaxes muscle hypertonia, with its stresses on related joints, ligaments and skeletal structures.

ACTS FAST. Pain-relieving and relaxant effects start in 30 minutes and last 6 hours.

NOTABLY SAFE. Toxicity of **SOMA** is extremely low. No effects on liver, endocrine system, blood pressure, blood picture or urine have been reported. Some patients may become sleepy, particularly on high dosage.

EASY TO USE. Usual adult dose is one 350 mg. tablet 3 times daily and at bedtime.

SUPPLIED: Bottles of 50 white coated 350 mg. tablets.

Literature and samples on request.



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DESITIN[®] ACNE cream

conceals better:

cosmetizes so well that acne lesions are virtually invisible.

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gentle keratolysis opens clogged pores; eliminates excess oil.

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antibacterial; markedly reduces comedones and pustules.^{1,2}

Invites Regular Use: Flesh-tinted, quick-drying, cosmetically elegant. Pleasant to use, greaseless. Combines colloidal sulfur, resorcinol, zinc oxide and hexachlorophene.

1. Bleiberg, J.: J. Med. Soc. New Jersey, Aug. 1957.

2. Weissberg, G.: Clinical Medicine, Feb. 1958.

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DESITIN SOAP

... ideal
for cleansing
teen-agers' skin

***the anatomy of touch*...EXQUISITE SENSIBILITY**

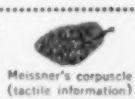
An alert and exquisite "fifth sense" in clinical diagnosis is tactile sensibility, as, for example, in discerning the presence and quality of a nodule in the thyroid.

Patients esteem their own tactile sensibilities, as well, and notably in the choice of a prophylactic, RAMSES,[®] for example, in which utmost sensitivity is preserved—"built-in." The superior prophylactic, RAMSES is a tissue-thin rubber sheath of amazing strength, of solid clinical reliability, and yet smooth as silk, transparent as gossamer, almost out of human awareness.

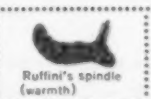
RAMSES enables the physician to rely on rigorous cooperation for putting an end to the cycle of re- and re-infection with *Trichomonas*,¹ due most often to unprotected sexual intercourse.² Without imposition, or deprivation, for the sake of cure, routinely using RAMSES will assure positive clinical control with a minimum of awareness, for in RAMSES the sensitivity is "built-in."



Pacini's corpuscle
(pressure sensibility)



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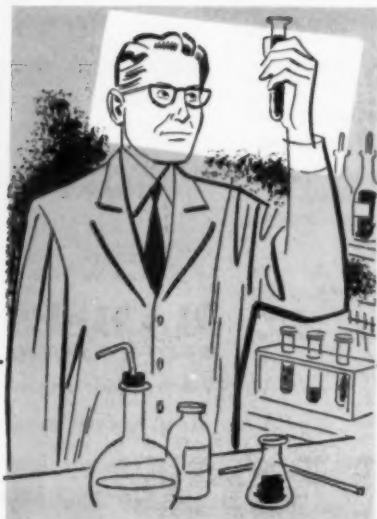
1. Weiner, H. H.: Clin. Med. 5:25 (Jan.) 1958.

2. Giorlando, S. W., and Brandt, M. L.: Am. J. Obst. & Gynec. 76:666 (Sept.) 1958.

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MODERN MEDICINALS

These brief résumés of essential information on the newer medicinals, which are not yet listed in the various reference books, can be pasted on file cards and a record kept. This file can be kept by the physician for ready reference.

Aristocort Syrup, Lederle Laboratories Division, American Cyanamid Company, Pearl River, New York. Syrup form of triamcino-lone diacetate, each 5 cc. of which contains 2 mg. of the drug. Indicated in the treatment of a wide range of disorders including rheumatoid arthritis, acute bursitis, bronchial asthma, various dermatoses including psoriasis and acute and chronic leukemia. *Dose:* Average, 3 to 8 teaspoonfuls per day. *Sup:* Bottles of 4 oz.

Darvo-Tran, Eli Lilly and Company, Indianapolis, Indiana. Pulvules, each containing 32 mg. dextro propoxyphene hydrochloride, 325 mg. acetylsalicylic acid, and 150 mg. phenaglycodol. Indicated for the relief of pain accompanied by tension and anxiety. *Dose:* Average adult dosage, 1 pulvule 3 or 4 times daily. *Sup:* Bottles of 100.

Durabolin, Organon Inc., Orange, New Jersey. Injectable long-acting anabolic steroid, each cc. of which contains 25 mg. nandrolone phenpropionate. Indicated to promote body tissue-building processes and reverse catabolic or tissue-depleting processes. *Dose:* Adults, 25 mg. by intramuscular or subcutaneous injection once weekly, or 50 mg. every second week. Children, 12.5 mg. once

weekly. *Sup:* Multiple dose vials of 5 cc. and ampuls of 1 cc. in boxes of 3.

Effersyllium, The Stuart Company, Pasadena, California. Granules containing psyllium hydrocolloid, sucrose, potassium bicarbonate, citric acid, and artificial sweeteners. Indicated for patients who need bulk only in a laxative. *Dose:* Adults, 1 rounded teaspoonful in a glass of water 1 to 3 times daily. Children, less according to age or as directed by physician. *Sup:* Bottles of 9 oz.

Enfamil, Mead Johnson & Co., Evansville, Indiana. New infant formula in liquid or powder form made from nonfat milk, lactose, oleo, corn and coconut oils, soy lecithin and carrageenin (liquid only), plus vitamins and minerals. Enfamil comes nearest to mother's milk in nutritional breadth and balance. *Dose:* As directed by physician. *Sup:* Liquid in cans of 13 oz., powder in cans of 1 lb.

Medrol 16 mg., The Upjohn Company, Kalamazoo, Michigan. New dosage size, each tablet containing 16 mg. 6-methyl-delta-1 hydrocortisone. Indicated for various rheumatic, allergic, dermatologic, ocular and

Continued on page 92a



when you see
signs of
anxiety-tension
specify

Dartal[®] dihydrochloride
brand of thiopropazate dihydrochloride

for rapid relief of anxiety manifestations

You will find Dartal outstandingly beneficial in management of the anxiety-tension states so frequent in hypertensive or menopausal patients. And Dartal is particularly useful in the treatment of anxiety associated with cardiovascular or gastrointestinal disease, or the tension experienced by the obese patient on restricted diet. You can expect consistent results with Dartal in general office practice.

with low dosage: Only one 2, 5 or 10 mg. tablet t.i.d. *with relative safety:* Evidence indicates Dartal is not icterogenic.

Clinical reports on Dartal: 1. Edisen, C. B., and Samuels, A. S.: A.M.A. Arch. Neurol. & Psychiat. 80:481 (Oct.) 1958.
2. Ferrand, P. T.: Minnesota Med. 41:853 (Dec.) 1958.
3. Mathews, F. P.: Am. J. Psychiat. 114:1034 (May) 1958.

SEARLE



"All my patients get an extra lift with 'Beminal' Forte"

BECAUSE JUST ONE CAPSULE A DAY provides massive doses of vitamin B and therapeutic amounts of vitamin C,* "Beminal" Forte amply meets the need when requirements are high and reserves are low. And when the need is particularly acute, for instance, during long term illness or to accelerate tissue repair, 2 or 3 capsules may be given daily.

Supplied: No. 817 — Bottles of 100 and 1,000 capsules.

FOR PATIENTS ON SPECIAL DIETS, IN INFECTION, OR PRE- AND POST-OP
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Therapeutic B Factors with Vitamin C

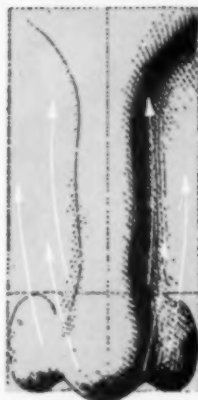


Ayerst Laboratories • New York 16, N. Y. • Montreal, Canada

*Vitamin C content recently increased to 250 mg. per capsule without increase in cost.

penetrating

NOSE-OPENER



BIOMYDRIN[®]

speeds
medication to
the site
of irritation

nasal spray
drops



penetrates, causing
prompt dispersion of
mucoid secretions.
This deep infiltration
allows all therapeutic
agents to
remain active
for prolonged
periods.

spreads almost instantly.

clears the air passages.

decongests without
causing
rebound congestion.

controls the allergic component.

combats infections.

safe—no pediatric dosage
form is needed.

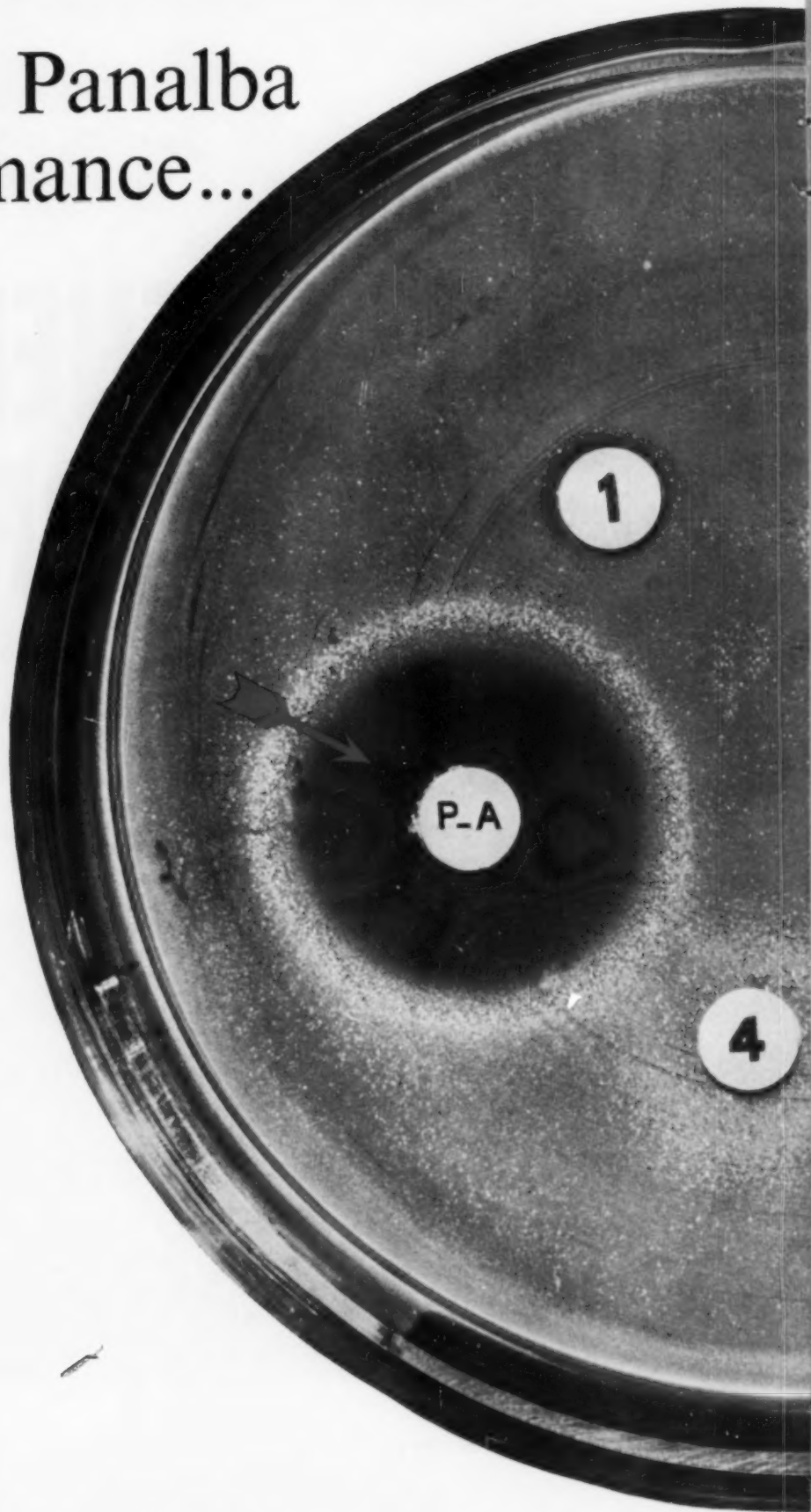


MORRIS PLAINS, N. J.

Thonzonium bromide 0.05%
Neomycin sulfate 0.1%
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Thonzylamine HCl 1.0%
Phenylephrine HCl 0.25%
15 ml. atomizer or dropper bottle.

Also, **Biomydrin[®] F nasal spray**
with hydrocortisone alcohol
0.02%—useful in the most
stubborn cases of edema and
inflammation. 15 ml. atomizer.

This is Panalba
performance...



in bronchitis

... into a mixed culture of the four organisms commonly involved in bronchitis . . . *Str. hemolyticus*, *D. pneumoniae*, *H. influenzae* and *Staph. aureus* (in this case a resistant strain) . . . we introduce the five most frequently used antibiotics.

Twenty-four hours later (in this greatly enlarged photograph), note that only *one* of the five leading antibiotics has stopped *all* the organisms, including the resistant staph! This is Panalba.

In your next patient with bronchitis . . . in *all* your patients with potentially-serious infections . . . provide this extra protection with your prescription:

Dosage—1 or 2 capsules 3 or 4 times a day.
Supplied—Capsules containing Panmycin phosphate equivalent to 250 mg. tetracycline hydrochloride, and 125 mg. Albamycin as novobiocin sodium, in bottles of 16 and 100.
Now available: new Panalba Half-Strength Capsules in bottles of 16 and 100.

Panalba*

(Panmycin* Phosphate plus Albamycin*)

The broad-spectrum
antibiotic of
first resort

Upjohn

The Upjohn Company
Kalamazoo, Michigan

TRADEMARK, REG. U. S. PAT. OFF.

other conditions known to be responsive to the anti-inflammatory corticosteroids. *Dose:* As directed by physician. *Sup:* Bottles of 50.

Midicel Acetyl Suspension, Parke, Davis & Co., Detroit, Michigan. Butterscotch - flavored liquid, each 5 cc. of which contains the equivalent of 250 mg. sulfamethoxypyridazine. Indicated in the treatment of urinary tract infections and in those infections responsive to sulfonamide therapy including respiratory infections, surgical and soft tissue infection, and bacterial dysentery. *Dose:* As directed by physician. *Sup:* Bottles of 4 oz.

Mycolog Cream, E. R. Squibb & Sons, Division of Olin Mathieson Chemical Corp., New York, New York. Companion product of Mycolog Ointment, differing only in the base, which is a soft vanishing cream. Indications are the same, but the cream absorbs faster and makes a bandage unnecessary. *Use:* Apply to affected area twice daily. *Sup:* Tubes of 5 Gram and 15 Gram.

Nico-Met, Knoll Pharmaceutical Company, Orange, New Jersey. Tablets or elixir. Each tablet or each 5 cc. of elixir contains 100 mg. pentylenetetrazol and 50 mg. nicotinic acid. Indicated as a gerontherapeutic cerebral stimulant for the treatment of senile deterioration of all degrees accompanied by lethargy, withdrawal and concomitant confusion, disorientation and behavioral disorders. *Dose:* 1 or 2 teaspoonfuls of the elixir or the tablets 3 times daily. *Sup:* Elixir in bottles of pt. and gal., tablets in bottles of 100 and 1000.

Norisodrine Syrup W Calcium Iodide, Abbott Laboratories, North Chicago, Illinois. Honey-mint flavored syrup, each 30 ml. of which contains 18 mg. isoproterenol sulfate, and 900 mg. of calcium iodide (anhydrous). Indicated for relief of asthmatic attack and prophylaxis against asthma. Also for allergic cough and respiratory infections in which symptoms are aggravated by allergic components. *Dose:* Usual adult dose, 1 teaspoonful 4 times daily, or as directed by physician. *Sup:* Bottles of 1 pt.

Orthoxicol Syrup, 2 oz. and 4 oz., The Upjohn Company, Kalamazoo, Michigan. New sizes. Each 5 cc. contains 1.8 mg. dihydrocodeinone bitartrate, 17 mg. methoxyphenamine hydrochloride and 325 mg. sodium citrate. Indicated to alleviate cough associated with common cold, laryngitis, tracheitis, bronchitis and bronchial asthma. *Dose:* As directed by physician. *Sup:* Bottles of 2 oz. and 4 oz.

Ostensin, Wyeth Laboratories, Philadelphia, Pennsylvania. Trimethidinium methosulfate. Indicated in the management of essential hypertension; lowers blood pressure, provides symptomatic relief of diastolic hypertension. *Dose:* Dosage is individualized. Therapy is initiated with one 20-mg. tablet before breakfast, in midafternoon and before retiring. Adjustment of dosage should be made according to the patient's blood pressure taken while standing. For maximum effect, the drug should be taken in a fasting or near-fasting state. *Caution:* The drug should be administered with caution to patients with severe renal disease. In patients with increasing blood urea nitrogen, it should be discontinued. *Sup:* Scored white tablets of

Concluded on page 100a



the promise of

PERMITIL

Fluphenazine dihydrochloride

in everyday office practice

safely controls the "target symptoms" of
emotional stress with the smallest effective dosage
of any neuroleptic* agent (0.25 mg. b.i.d.)

virtually free from side effects at the
recommended dosage level

a significantly wider spectrum of "target symptoms"
is amenable to therapy

onset of action is rapid; duration of effect is prolonged

***Neuroleptic**—"The term 'neuroleptic' implies a specific effect of a pharmacologic agent on the nervous system. It refers to a mode of action on affective tension that distinguishes this response from that to hypnotic drugs. The terms 'ataraxics' and 'tranquilizers' are descriptively impressive, but fail to convey what seems psychopharmacologically unique."¹

the performance of PERMITIL

in everyday office practice

"Fluphenazine (PERMITIL) the latest and most potent phenothiazine tranquilizer was administered from 3 to 20 months to 200 ambulatory and hospitalized patients representing a full spectrum of diagnostic classifications including psychosomatic disorders. Fractional doses of this drug rapidly produced improvement in 74% of these patients while causing a minimum of sedative, autonomic and endocrine effects which disappeared as treatment continued. . . . Patient acceptance of this compound was excellent because its prescription facilitated rather than interfered with the efficient performance of daily tasks. The physician who masters the art of fluphenazine use can treat a widened spectrum of target symptoms, safely and effectively."²

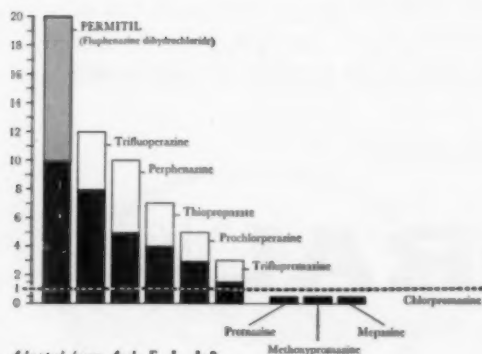


Now,
for the first time,
a phenothiazine
anti-anxiety agent
PERMITIL
designed specifically for
everyday office practice

A Factor to Consider in Phenothiazine Therapy
"The more potent the phenothiazine derivative the fewer the side effects it produces, because less of the chemical is needed to effect behavioral and therapeutic changes."²

The structure of PERMITIL has made it, on a mg. for mg. basis, "at least twice as potent as trifluoperazine, 3-5 times as potent as perphenazine and 10-20 times as potent as chlorpromazine, while increasing its speed and duration of action with a minimum of sedative, autonomic and endocrine side effects."²

The Relative Therapeutic Potency
of Various Phenothiazines



Adapted from Ayd, F. J., Jr.³

Clinical Results with PERMITIL—a Phenothiazine

In one study² covering a two-year period, PERMITIL was prescribed for 200 patients who were disabled primarily by anxiety and its somatic, emotional, mental and behavioral effects.

"After 3 months of fluphenazine (PERMITIL) therapy, 74% or 148 of the 200 patients evaluated were improved. Of the 102 patients with a poor pretreatment prognosis, 69 improved, while 79 of the 98 patients with a good prognosis improved. Thus the therapeutic effectiveness of fluphenazine (PERMITIL) is somewhat better than that of other potent tranquilizers."²

The relatively minor somatic reactions occurred in the early weeks of treatment with doses above 2 mg. daily. They seldom required other medication to counteract them and disappeared as the maintenance dose was established. At dosage levels under 3 mg. a day, extrapyramidal side effects were minimal.

Prior to this study, 130 patients had urinalyses, hematologic studies (white blood count and differential), and liver function tests (cephalin flocculation, bilirubin direct and indirect, and alkaline phosphatase). These tests were repeated between 3 and 6 months in 50 patients, between 6 and 12 months in 50 patients and between 12 and 18 months in 30 patients. The minimum total dosage was 139 mg. Results of these tests disclosed that "fluphenazine (PERMITIL) administered over 3 to 18 months had no deleterious effect on the blood, liver or kidney in these patients."²

The Importance of PERMITIL in Everyday Practice

"In contrast to other phenothiazines, it (PERMITIL) mitigates apathy, indifference, inertia and anxiety-induced fatigue. Thus, instead of impeding effective performance of daily tasks, it increases efficiency by facilitating psychic relaxation. Consequently, acceptance of this drug, especially by office patients, has been excellent."²

How to Prescribe PERMITIL For most adults: One 0.25 mg. tablet b.i.d. (taken morning and afternoon). In refractory cases: Two 0.25 mg. tablets b.i.d. Total daily dosage in refractory cases should not exceed 2 mg., in divided doses. Dosage for children has not been established. Complete information concerning the use of this drug is available on request.

Available as Tablets, 0.25 mg., bottles of 50 and 500.

References: 1. Freyhan, F. A.: *Psychopharmacology Frontiers*, Boston, Little, Brown and Co., 1959, p. 7. 2. Ayd, F. J., Jr.: Fluphenazine: its spectrum of therapeutic application and clinical results in psychiatric patients, *Current Therapeutic Research*, 1:41 (Oct. 15) 1959. 3. Ayd, F. J., Jr.: The current status of major tranquilizers, in press.

WHITE LABORATORIES, INC.,
Kenilworth, New Jersey





no asthma symptoms—Prophylactic use of Tedral in any of its 5 convenient dosage forms permits most bronchial asthma patients to breathe normally, live actively, avoid social embarrassment. Tedral keeps patients safely free of constriction, congestion and apprehension. When attacks are frequent, prescribe 1 or 2 plain Tedral tablets q.4.h. plus an additional tablet at the first sign of symptomatic breakthrough. Tedral protects up to 4 hours.

Formula: Each scored, plain Tedral tablet contains: Phenobarbital, 8 mg. ($\frac{1}{4}$ gr.) (Warning: May be habit forming); Theophylline, 130 mg. (2 gr.); Ephedrine, HCl 24 mg. ($\frac{1}{2}$ gr.)

TEDRAL[®]

the dependable antiasthmatic



easiest way to stop a cough



Tessalon[®]

perles

Tessalon perles stop cough fast — and they're convenient to take. No mess, no spillage, no awkward spoons or bottles to carry around. Another advantage: *no taste*. An exact, effective dose is sealed in a tiny gelatin sphere.

Reasons *why* Tessalon stops cough so effectively: it acts where cough begins—in the chest; it acts at the cough reflex center—in the medulla; it acts promptly—within 15 to 20 minutes, the effect lasting up to 8 hours. Tessalon is *not* a narcotic, yet has been reported 2½ times more effective than codeine in suppressing cough.¹

SUPPLIED: Tessalon Perles, 100 mg. (yellow); bottles of 100. Tessalon Pediatric Perles (for children under 10), 50 mg. (red); bottles of 100. Also available (for use when oral administration of Tessalon is precluded): Ampuls, 1 ml. (5 mg.); cartons of 5.

1. Shane, S. J., Erzycki, T. K., and Copp, S. E.: Canad. M.A.J. 77:600 (Sept. 15) 1957.

TESSALON[®] (benzonatato CIBA)

CIBA

Summit, New Jersey



Announcing

'ACTIFED'[®]

Decongestant / Antihistamine



THE POTENTIATED DECONGESTANT

provides symptomatic relief of nasal congestion and rhinorrhea of allergic or infectious origin

Many patients whose symptoms are inadequately controlled by decongestants or antihistamines alone respond promptly and favorably to 'ACTIFED'.

	'ACTIFED' contains:	in each Tablet	in each tsp. Syrup
'Actidil'® brand Triprolidine Hydrochloride		2.5 mg.	1.25 mg.
'Sudafed'® brand Pseudoephedrine Hydrochloride		60 mg.	30 mg.

safe and effective for patients of all ages suffering from upper respiratory tract congestion

DOSAGE

	TABLETS	SYRUP (5 cc. tsp.)	} three times daily
Adults and older children	1	2	
Children 4 months to 6 years of age	$\frac{1}{2}$	1	
Infants through 3 months	—	$\frac{1}{2}$	



BURROUGHS WELLCOME & CO. (U.S.A.) INC., Tuckahoe, New York

completes the picture in high starch diets
TAKA-COMBEX®
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to help digest carbohydrates • to forestall vitamin deficiencies

Each Kapseal contains:

Taka-Diastase® (aspergillus oryzae enzymes) 2½ gr.
Vitamin B₁ (thiamine) mononitrate 10 mg.
Vitamin B₂ (riboflavin) 10 mg.
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Pantothenic acid (as the sodium salt) 3 mg.
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Supplied in bottles of 100 and 1,000.

TAKA-COMBEX elixir containing Taka-Diastase, Vitamins B₁, B₂, B₆, pantothenic acid, and nicotinamide is also available in 1-pint bottles.

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when requirements for B-complex are increased
COMBEX® KAPSEALS
bottles of 100, 500, and 1,000

for combined B-complex and C deficiencies

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for a rapid increase in B-complex reserves

COMBEX PARENTERAL
10-cc. Steri-Vials®

for correction of severe vitamin B-complex and C deficiencies

THERA-COMBEX® KAPSEALS
bottles of 100 and 1,000

PARKE, DAVIS & COMPANY
DETROIT 32, MICHIGAN



20 mg. and scored peach tablets of 40 mg., each in vials of 100.

Pyrroxate, The Upjohn Company, Kalamazoo, Michigan. Revised formula, differing from the old only in the substitution of 2 mg. chlorpheniramine maleate for 12.5 mg. pyrilazote. Indicated for symptomatic relief in allergic rhinitis and in the common cold. *Dose:* As directed by physician. *Sup:* Bottles of 24 and 500.

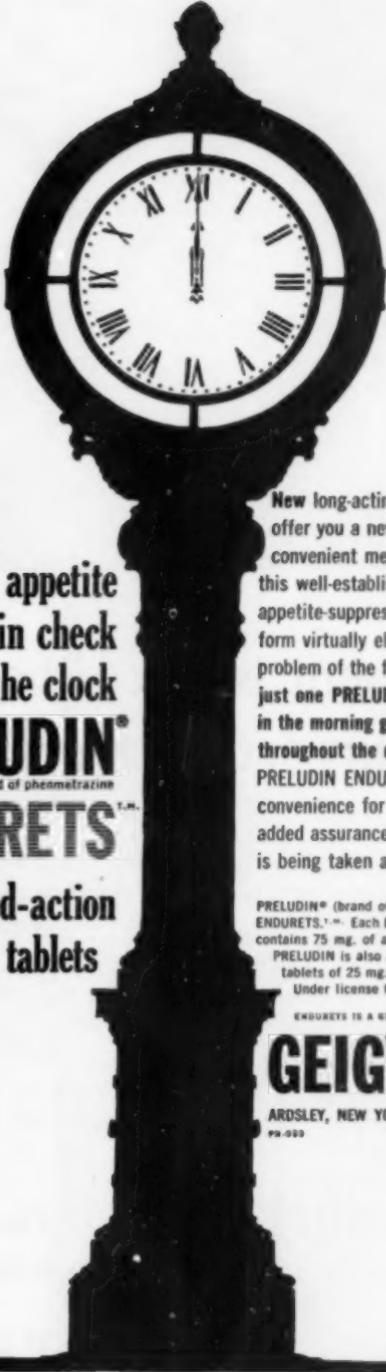
Tral Gradumet, 75 mg., Abbott Laboratories, North Chicago, Illinois. New oral long-release dosage form, designed to maintain therapeutic anticholinergic effect for up to 12 hours. Indicated primarily for control of nighttime secretion in cases of peptic

ulceration. *Dose:* Usual adult dose, 1 gradumet at bedtime. *Sup:* Bottles of 50 and 500.

Vitamin A & D Ointment with Prednisolone, White Laboratories, Inc., Kenilworth, New Jersey. Contains 0.5% prednisolone plus the standard White's Vitamin A and D Ointment formula consisting of vitamins A and D in the same ratio as found in cod liver oil. Indicated for the topical treatment of localized inflammatory skin conditions which include dermatitis due to thermal or chemical irritation, allergic dermatoses such as contact dermatitis, atopic dermatitis, non-specific pruritus and neurodermatitis. *Use:* Small quantity rubbed gently on affected areas 3 or 4 times daily. *Sup:* Tubes of 10 Gram and 25 Gram.



"It'll make the other multiple Vitamin capsules look sick."



keeping appetite
in check
around the clock
PRELUDIN®
brand of phenmetrazine
ENDURETS
T.M.
prolonged-action
tablets

New long-acting PRELUDIN ENDURETS offer you a new method...a more convenient method...of administering this well-established, reliable appetite-suppressant. The new ENDURETS form virtually eliminates the vexing problem of the forgotten dose because... just one PRELUDIN ENDURET taken in the morning generally curbs the appetite throughout the day. PRELUDIN ENDURETS afford greater convenience for your patient... added assurance to you that medication is being taken as prescribed.

PRELUDIN® (brand of phenmetrazine hydrochloride) ENDURETS.™ Each ENDURETS prolonged-action tablet contains 75 mg. of active principle.

PRELUDIN is also available as scored, square pink tablets of 25 mg. for 2 to 3 times daily administration. Under license from C. H. Boehringer Sohn, Ingelheim.

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embarrassment is often the reason patients seek acne treatment

Most acne patients are deeply embarrassed by their unsightly lesions. A good acne preparation, therefore, should be cosmetic as well as curative.

'Acnomel' Cream and Cake achieve both aims of acne therapy. 'Acnomel' in either form conceals as it heals. The flesh-tinted base masks acne lesions and reduces embarrassment. The effective combination of sulfur, resorcinol and hexachlorophene acts to heal these lesions.

Used in combination, 'Acnomel' Cream and Cake provide 24-hour acne therapy. The Cream is excellent for use at home, morning or night, while the Cake, in its handy compact, is particularly convenient for touch-up medication away from home.

Acnomel* Cream and Cake
conceals as it heals



SMITH KLINE & FRENCH LABORATORIES

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Each PRONEMIA capsule contains:
Vitamin B₁₂ with AUTRINIC
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	2 U.S.P. Oral Units
Ferrous Fumarate	350 mg.
Iron (as Fumarate)	115 mg.
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Also available: FALVIN® Hematinic two-day formula and PERIHEMIN® Hematinic three-day formula.

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**NORMAL...
SUSTAINED**

EASY-TO-TAKE IRON—Highly efficient, excellently tolerated source of nutritional iron, ferrous fumarate, for dependable hemopoietic response. Gentle on the g.i. tract...fewer interruptions of therapy due to side effects.

EASY-TO-REMEMBER DOSAGE—Single capsule regimen assures consistent response...reduces chance of inadequate intake from "forgotten" doses. Full therapeutic iron allowance, plus complementing hematinic formula including B₁₂ and AUTRINIC® Intrinsic Factor Concentrate.

PRONEMIA

NEW concept

in chronic constipation...

and especially that associated with
the irritable bowel syndrome



DECHOTYL

TABLETS*

provides physiologic support until function returns

*T.M. for AMES trapezoid-shaped tablet.



DECHOTYLTM

TABLETS^{*}

safe, gentle transition to normal bowel function

DECHOTYL provides gentle stimulation of the bowel and helps restore normal consistency of the intestinal contents to gradually re-establish normal bowel function in your chronically constipated patients.

THE RATIONALE of DECHOTYL is based on an effective combination of therapeutic agents:

DECHOLIN[®], dehydrocholic acid, AMES, (200 mg.), the most potent hydrocholeric available, is a chemically pure bile acid and has been used effectively in the treatment of biliary tract disorders for many years. It produces an increased flow of thin bile which helps to lower surface tension of intestinal fluids, promotes emulsification and absorption of fats and mildly stimulates intestinal peristalsis.

Desoxycholic Acid (50 mg.)—a choleric, also is a chemically pure bile acid and stimulates an increased flow of bile, lowers surface tension and stimulates peristalsis. By emulsifying fat globules, desoxycholic acid aids the digestive action of the fat-splitting enzyme, lipase. DECHOLIN and desoxycholic acid thus favorably influence the constitution and the movement of the intestinal contents.

Diocetyl Sodium Sulfosuccinate (50 mg.) is a wetting agent which lowers surface tension and aids the penetration of intestinal fluids into the fecal mass, providing a moist stool of normal consistency.

EFFECTIVE: Bile influences the constitution as well as the movement of the intestinal contents. The ingredients of major importance are DECHOLIN and desoxycholic acid which increase the flow of bile, lower surface tension, promote emulsification and absorption of fats and mildly stimulate intestinal peristalsis. With diocetyl sodium sulfosuccinate, a good therapeutic effect can be obtained without the danger of toxicity or decreasing effectiveness even when used regularly.

SAFE: Clinical evidence indicates that the constituents of DECHOTYL cause no systemic sensitivity, drug accumulation, habituation or interference with nutrition. Orally, in therapeutic amounts, DECHOTYL is without significant toxic effect. The only side effect following oral administration is diarrhea if the dosage is excessive.

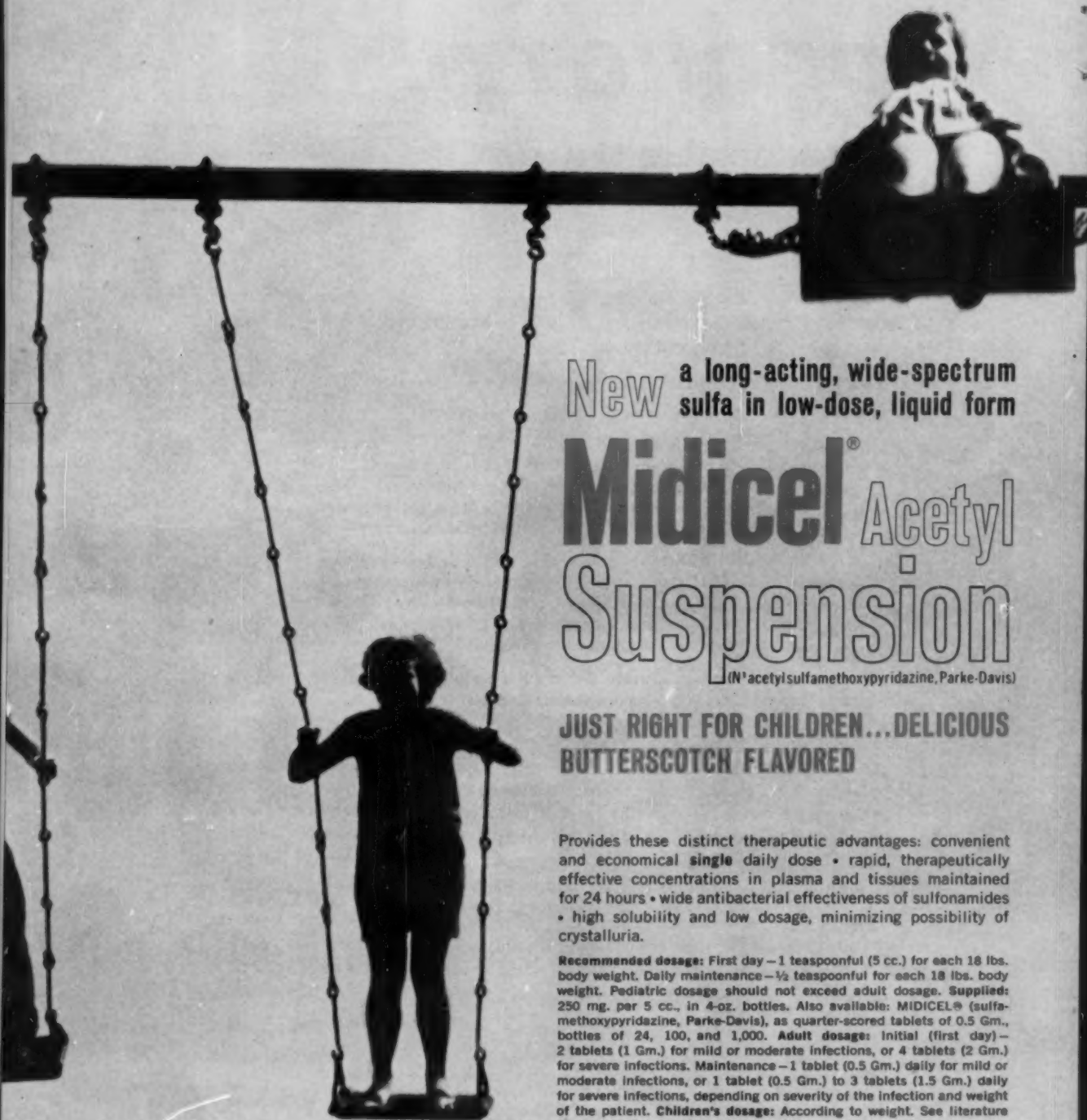
Dosage: Average adult dose—Two TABLETS^{*} at bedtime. Some individuals initially may require 1 to 2 TABLETS three or four times daily.
Contraindications: Biliary tract obstruction; acute hepatitis.

Available: TABLETS^{*}, coated, yellow, trapezoid-shaped; bottles of 100.

AMES
COMPANY, INC.
Elkhart • Indiana
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New a long-acting, wide-spectrum
sulfa in low-dose, liquid form

Midicel[®] Acetyl Suspension

(N¹acetylsulfamethoxypyridazine, Parke-Davis)

**JUST RIGHT FOR CHILDREN...DELICIOUS
BUTTERSCOTCH FLAVORED**

Provides these distinct therapeutic advantages: convenient and economical **single** daily dose • rapid, therapeutically effective concentrations in plasma and tissues maintained for 24 hours • wide antibacterial effectiveness of sulfonamides • high solubility and low dosage, minimizing possibility of crystalluria.

Recommended dosage: First day—1 teaspoonful (5 cc.) for each 18 lbs. body weight. Daily maintenance—½ teaspoonful for each 18 lbs. body weight. Pediatric dosage should not exceed adult dosage. **Supplied:** 250 mg. per 5 cc., in 4-oz. bottles. Also available: MIDICEL[®] (sulfamethoxypyridazine, Parke-Davis), as quarter-scored tablets of 0.5 Gm., bottles of 24, 100, and 1,000. **Adult dosage:** Initial (first day)—2 tablets (1 Gm.) for mild or moderate infections, or 4 tablets (2 Gm.) for severe infections. Maintenance—1 tablet (0.5 Gm.) daily for mild or moderate infections, or 1 tablet (0.5 Gm.) to 3 tablets (1.5 Gm.) daily for severe infections, depending on severity of the infection and weight of the patient. **Children's dosage:** According to weight. See literature for details of dosage and administration.



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Whatever the indication,*
whatever degree of sedation desired
...a form of Nembutal will meet the need
(Nothing faster, shorter-acting, safer in barbiturate therapy.)

NEMBUTAL®

(Pentobarbital, Abbott)



*ADMINISTRATION OF BLOOD
AND PARENTERAL FLUIDS

The NERVOUS PATIENT

*The effect of nervous and emotional
tension on the gastrointestinal tract*

CHARLES H. BROWN, M.D., Cleveland, Ohio

The patient with functional stomach and bowel distress, presents a problem both as to the diagnosis and treatment. This is a common problem, since the abdomen is the "sounding board of the emotions." There are not enough psychiatrists to see all these patients, so all of us have to diagnose and treat them.

Too many of us have the attitude depicted in a cartoon by Peter Arno—one of the gentlemen is telling the other—"Don't tell me your troubles, I've got troubles of my own." Perhaps many of us are too involved with our own tensions and problems to listen to those of others.

Many times I have heard comments of my residents, as you have, "Well, here is just another crock." They apparently feel they have nothing to learn from this patient—no curiosity as to why or what to do—and yet if a doctor can recognize and understand functional gastrointestinal conditions he must have a complete knowledge of organic disease. Functional symptoms can mimic every organic gastrointestinal disease.

The incidence of nervous tension is greater than all other diseases combined. Over seventy-five percent of the patients we see in the

gastrointestinal section of the Cleveland Clinic are seen basically because of nervous tension. Five hundred consecutive admissions to the Ochsner Clinic were studied and seventy-six percent ultimately were found to have functional disease.² Bockus and Willard³ reported that forty-six percent of one thousand consecutive admissions had a nervous or irritable colon.

Lack of attention given to functional disease is vividly shown in a textbook on gastroenterology just released. In this textbook⁴ of some six hundred and fifty pages, a total of three pages is devoted to this problem. I am sure the percentage of patients with functional disease the author sees in New York is, if anything, higher than the seventy-five percent we see in Cleveland.

The drug companies have been quick to realize the importance of emotional disturbance both in functional and organic diseases. Representative Blatnik, in an investigation for the House of Representatives, reported that

From the Department of Gastroenterology, Cleveland Clinic, Cleveland, Ohio. Excerpted from a talk given at the Sixth Bahamas Medical Conference, December, 1958, and at the Oklahoma State Medical Association, Oklahoma City, April, 1958.

tranquilizing drugs are incorporated in one-third of the prescriptions written in the United States. The sale of these drugs amounted to \$300,000,000 in one year. It is easier to write a prescription than to find the real problem the patient has and to correct it.

As you are aware from leafing through medical journals, tranquilizing drugs have been advertised as doing everything for your patient but mow his lawn and take care of his home—and I am not sure about the latter. They are advertised to be of benefit in: cardiac conditions, cardiovascular diseases, arthritis and rheumatic disorders, backache and actually pain from any cause, dysmenorrhea, asthma, obesity and most types of gastrointestinal ailments. Tranquilizers have been combined with analgesics, anticholinergic and antispasmodic drugs.

The pharmaceutical houses are keenly aware of the role of emotional and nervous tension in disease. There can be no doubt that these drugs have benefited and are indicated for many patients. However, the prescribing of a simple tranquilizing drug only helps the anxiety temporarily. It does not solve the patient's emotional problem and nervous tension.

Similar to the pharmaceutical houses, English literature has had many references on the effect of emotional and nervous tension on personality and health. Alexander Hamilton Stevens⁵, the vice-president of the Confederacy, who was always in poor health, stated, "The torture of the body is severe. I had my share of that. Most of the maladies the flesh is heir to, but all of these are slight when compared with the pangs of an offended and wounded spirit. Physical sufferings are not the worst ills I am heir to." I think we as doctors have fallen behind the pharmaceutical houses and the authors in recognizing the importance of emotional and nervous factors in disease.

Medicine has progressed tremendously in the past fifty years. The average life expectancy has been prolonged nineteen years. These are some examples of progress with which you are all familiar. But, despite the progress in medicine and surgery, I think all of us realize

that psychiatry is mostly descriptive and mechanistic — still in the nineteenth century. We can discover the cause and mechanism of neurosis in a patient, but that does not cure the patient. The diagnosis and treatment of the most common disease⁶ we see—nervous tension—is not generally taught in medical schools. It is not discussed after medical school and it is not reported in medical journals. An example of this is that the signs and symptoms of functional disease are sadly neglected in books on physical diagnosis.

It is important to remember that emotional and nervous tension can cause organic disease. In the March 31st, 1958 issue of *Newsweek* there was a special five-page article about Hans Selye on the role of stress in causing heart disease, arthritis, mental disease and other conditions. Hypertension in the vast majority of patients is caused not by an adrenal tumor, renal disease or organic heart disease but by nervous tension. Unfortunately, the blood pressure can get so high and so severe that it may progress to a stroke, a heart attack or cardiac failure. The immediate cause of forty-nine percent of attacks of coronary occlusion was an emotional stress as reported by Weiss⁷ et al. from Philadelphia. Russeck and Zohman⁸ reported similar findings in a ten-year study of one hundred young heart disease victims. Emotional factors are important in cardiospasm or achalasia which can, of course, progress to a markedly dilated esophagus, chronic bronchitis, bronchiectasis, and irreversible pulmonary changes with pulmonary fibrosis. Emotional and nervous tension in the patient with duodenal ulcer has been well described by Sullivan and others.⁹ A typical ulcer-type personality has been reported. These patients are outwardly calm, but inwardly tense, restless, over-ambitious and drivers. Emotional factors in ulcerative colitis have been long recognized. These patients have an ambivalent feeling toward the parent of the opposite sex with both a feeling of rejection and a feeling of need for love. Acute flare-ups of ulcerative colitis are frequently precipitated by emotional crisis. Nervous and emotional factors in anorexia

nervosa are recognized with perhaps an unconscious rejection of life by the patient and an attempt at a moral suicide. The organic changes associated with anorexia nervosa, however, can certainly be severe. Other conditions are: hives, urticaria, flushing, neurodermatitis, tics, and pruritus ani.

In addition to the problem of nervous tension causing organic disease, we also have organic disease causing emotional disturbances. Anyone who is sick or has pain from organic disease, such as cancer or a cardiac condition, is nervously and emotionally disturbed. An example: The young executive, who has had a heart attack or a stroke and wonders whether he will be put on the shelf at reduced income, with no chance for any further advancement and he wonders, "What about college education for my children?"

I. The Abdomen, Nervous and Emotional Tension

Nervous tension causes more disturbances in the abdomen than in any other system. As you noted in one of the previous slides, there was a quotation, "when anxiety and tension erupt in the gastrointestinal tract," and that is usually where it does erupt. The abdomen has been called the sounding board of the emotions. The colon has been called the mirror of the mind. The mind gets tight or nervous, the colon gets tight or spastic. You will remember "battle diarrhea" or "fear diarrhea" that has occurred in every war we have been in. Soldiers going into battle in World War I or in the Civil War frequently had to stop by the road side. The sergeants, captains, and colonels called these soldiers slackers, but it was entirely a physiological reaction on the part of the individual. Common expressions also indicate the relation of emotions: "he blanched with fear," "he was so mad he was red as a beet," "paralyzed with fear," "broke out into a cold sweat," "the experience (sight, smell, etc.) was nauseating," "brave men retched," "faint at the sight of blood."

Constipation is frequently a symptom of the nervous bowl. Another historical figure,

Josh Billings, stated, "I have finally kum to the konclusion that a good sett of bowells is worth more to a man than enny quantity of brain." We are indebted to Pavlov for his studies on the conditioned reflex, and for his demonstration that continued blocking of a well established conditioned response in a dog resulted in all the symptoms and behavior of neuroses. Walter B. Cannon's¹⁰ studies on fear, fight or flight and on hunger and pain taught us some of the adaptive mechanisms of the body for defense in situations that could cause bodily harm. With the progress of the human organism, the most serious threats to us are invariably mental (an argument, threat of loss of job and security, etc.), but the same adaptive bodily defenses are brought into play as when we could only flee or fight. In such a situation, gastrointestinal peristalsis and digestion cease. There is a decreased blood flow to the splanchnic area (splanchnic vasoconstriction) and increased blood flow to muscles and skin (somatic vasodilatation). Skin temperature rises and sweating occurs. Further physiological changes take place with the release of adrenalin, a rise in blood sugar to release more energy and a decrease in clotting time, etc. When "flee or fight" does not occur, all the energy released in this adaptive defense mechanism is wasted. With a mental stimulus for danger (such as loss of job), we really have no place to flee, and we dare not strike or fight our boss. This adaptive reaction to fear situations is well suited for animals who must react *bodily* to such fear. The reaction is ill-adapted to nervous or mental stimuli to which an intellectual rather than a bodily response is required in our modern living. These acute body adaptive changes to fear and stress situations can become chronic, as has been shown by Flanders Dunbar¹¹ in her studies on centenarians, and profoundly effect the way we sleep, everything we do, and how long we live.

We are also indebted to William Beaumont¹² and his studies on Alex St. Martin, to A. J. Carlson and his studies on a patient who also had a gastrostomy, resulting in easy observa-



Barium enema examination of the filled colon suggests a filling defect or neoplasm of the hepatic flexure. The patient had pain in the right upper quadrant simulating gallbladder disease.



A repeat barium enema examination the next day after potent antispasmodic drugs is normal, the previous apparent filling defect having been due to spasm. The evacuation films showed similar findings.

tion of the gastric mucosa, and to Flanders Dunbar's book¹¹ on "Emotions and Bodily Changes."

II. Physiological Mechanisms

Definite physiological mechanisms for the cause of the patient's pain and symptoms exist. Nervous tension can cause smooth muscle spasm and strangely enough the smooth muscle spasm may be concentrated and localized in one small area. It may be present in the upper esophagus, causing a lump in the throat or globus hystericus, in the lower esophagus, resulting in cardiospasm or achalasia, in the stomach with pylorospasm causing a feeling of a "lump." Generalized increased peristaltic activity throughout the entire colon can cause diarrhea. Similarly, there can be localized colonic spasm such as is seen in the nervous or irritable bowel syndrome. The chief sites

of pain in such patients are at the ileocecal valve, simulating appendicitis; at the hepatic flexure, simulating gallbladder disease; at the splenic flexure, simulating heart disease, and in the sigmoid colon frequently causing constipation. The physiology of pain in the splenic flexure of the colon has been studied by Machella¹², with balloons recording the pressure in the splenic flexure. Inflation of the balloon causing increased pressure resulted in what was frequently thought to be cardiac pain by the patient. Many of these patients had been incorrectly diagnosed as having cardiac disease, some had been made cardiac invalids, while their true condition was nervous spasm of the bowel. Machella called this the splenic flexure syndrome, but this is just one aspect of the nervous, spastic or irritable colon.

Second, there are blood vessel changes with both vasoconstrictor and vasodilator changes.

The work of Stewart Wolf and Harold Wolff¹⁴ on Tom, who had a gastrotomy, so that the mucosa of the stomach could be observed, demonstrated hyperemia, engorgement, erosions and gastritis associated with emotional crises. Grace, Wolf and Wolff¹⁵ showed the same changes in the colonic mucosa in patients who had colostomies and/or ileostomies.

Third, nervous tension can cause altered secretions. In the stomach there may be increased acid secretion which is present in practically every patient with duodenal ulcer. Others may have hyperacidity on gastric analysis and ulcer-type symptoms without actually having an ulcer—the pseudo-ulcer or hyperacidity syndrome. The decreased secretion of protective mucus may be the cause of stress (steroid or cortisone) ulcer. The colon normally secretes mucous to help us move our bowels and to act as a lubricant. With nervous tension and irritation they may be increased mucus secretion resulting in the so-called mucous colitis and even mucous casts of the bowel may be passed. These patients may bring in a mucous cast which they are convinced is a worm or the lining of the bowel. The name mucous colitis is a misnomer since there is no colitis present, with no infection or inflammation. The use of the term causes considerable harm—it suggests to the patient organic disease where none exists and it can be confused by the patient with an entirely different condition—true ulcerative colitis. The increased secretions noted in the gastrointestinal tract with nervous tension occur in other organs also. Anytime the nasal mucosa is irritated—by chemicals, infection or nervous tension—increased mucous secretion can result. In women, nervous tension can cause increased vaginal secretion which is entirely physiological.

From the physiological mechanisms I think you can see that nervous tension and imagination have nothing in common. This is the first most difficult concept for the patient with functional disease to grasp. It is his stumbling block. Never tell the patient that he imagines his pain, that it is in his mind, is mental or nerves—all synonymous with imagination. The



Barium enema examination showing spasm of the entire descending colon. There also is some dilation of the right colon proximally. This patient had a long history of constipation and had been taking irritating laxatives. Actually her constipation was due to too great spasm of the colon.

distress is real—the patient knows he has it—he feels the pain, sees the emesis, sees the watery stool and the mucous. The second most difficult concept for the patient and also for the doctor, who is an “organicist,” who has had no training in psychology or psychiatry—is the idea that nervous tension can cause the pain. So many times we hear, “There’s got to be something there, Doc, it hurts so—I feel it.”

III. Diagnosis

I have had trouble, and I am sure that you have too, with some psychiatrists to whom we refer patients who will not make the diagnosis of functional disease until the entire mechanism is discovered. This is not necessary and a positive diagnosis can be made without the knowledge of the basic mechanism



The diagnosis of nervous tension can be made from your own observations of the patient, and his behavior during the examination. It is not necessary to be a psychiatrist to know that this patient, with the chewed off finger nails, is nervous. Similar observations during examination of increased axillary sweating, tremor, response to questioning and general behavior can be diagnostic.

involved. The diagnosis is made on the basis of history, the patient's *behavior* during the history and examination, and physical findings.

When making the diagnosis, it is essential to exclude organic disease. Functional disease may obscure organic disease since: 1) The multiple complaints may be misleading. 2) Repeated longstanding complaints may confuse the doctor. The functional pain may be more severe than the organic pain. One of my good friends in Detroit had a patient with severe tension headaches and conversion all her life. She was very bitter about her tension headaches and died with an undiagnosed carcinoma of the stomach. Until the day she died her only complaints were the nervous headaches. Consequently, it is important to remember: First, that patients with a conversion neurosis can develop cancer. Second, the pain due to the nervous tension may be more severe than that due to cancer.

IV. Symptoms of Functional Disease

The symptoms alone of many patients suggest the diagnosis. Migraine suggests functional disease. We see many patients who have had cholecystectomy for migraine because they vomit

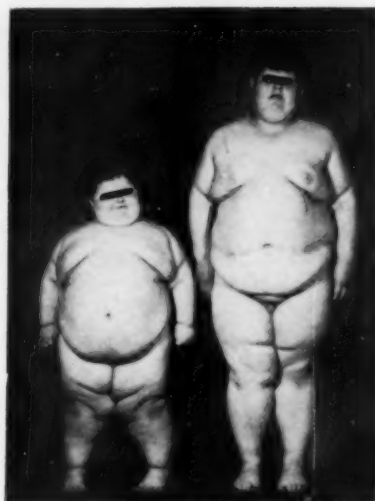
bile. Needless to say, they continue to have the migraine after their operation. Obesity is a symptom of nervous tension and some will admit they eat when they get nervous. A lump in the throat suggests globus, food striking substernally, particularly liquids intermittently. You can be suspicious of the patient who vomits everything he eats but has had no loss of weight.

Some complain of a lump in the stomach, food laying in the stomach and not being digested. Again, there has been no loss of weight. Shifting abdominal pain or pain all over the abdomen—multiple symptoms. Patients who bring in long lists of complaints. They are like someone who goes to the bargain counter and wants to get these twenty-five symptoms or complaints cured and solved for the price of one. *The more symptoms the patient has the less seriously you can take any one of them.* Bizarre symptoms that do not fit into any organic disease. Any evidence that there is aggravation of distress by emotional crises. Belching, aerophagia, bloating and gas seldom indicate organic disease. Pain over the apex of the heart with gas crowding the heart or similarly, relief by belching or passing flatus are functional disorders stimulating organic disease.

Chronic use of laxatives, relief of distress by bowel movement, and reproduction of distress by barium enema are suggestive of an irritable colon. Constipation is not constipation but only *impatience*. Recurrence of the same distress six months after operation is also suggestive of an irritable colon. We had one patient who had had seven operations and still had the original pain she had before the first one. Each operation was a surgical triumph. She believed in each one that she had been miraculously saved and snatched from the grave.

You all have seen the patient who cannot take any medication, who has strange and unusual reactions to any treatment. In addition to this patient, you also have seen the patient who is not helped or effected in any way by large doses of any medication. Poor habits

This Bar-man with the jovial smile appears quite happy and not nervous at all. The outward appearance of a patient may be deceiving, since it is inward tenseness that is most important. This patient's obesity is a sign of his tension; he eats when he gets nervous. Overeating with the resulting obesity can be very similar to alcoholism; both habits develop because of feelings of inadequacy and emotional tension, and often both are equally difficult to overcome.



Some overweight patients will say their whole family is obese. These two brothers, whose parents were also overweight, might lend false support to such an argument. However, it is not obesity that runs in the family, but the same personality traits, emotional tension, and habits of eating when under increased nervous tension.

such as excess coffee, excess alcohol, and excess smoking all suggest nervous tension.

You all see the patient who mystifies all doctors. "No one can diagnose me and no one can help me. I have a strange disease." Inability to swallow a pill, although large hunks of meat may be swallowed. Some patients transfer the cause of their symptoms to you. They blame you for their difficulty. Their attitude is "Doctor, *you* have to do something." These patients invariably have conversion. There are patients who complain of weak spells and fainting but actually never pass out.

Tiredness: Particularly tired mothers' syndrome. They are as tired in the morning after ten hours' sleep as when they went to bed.

Repeated blood counts and BMR's are normal.

The Patients with Shifting Complaints. Pain in the stomach which is relieved by symptomatic management, and then the patient develops other distress such as cardiac symptoms. Transference from one system to the other.

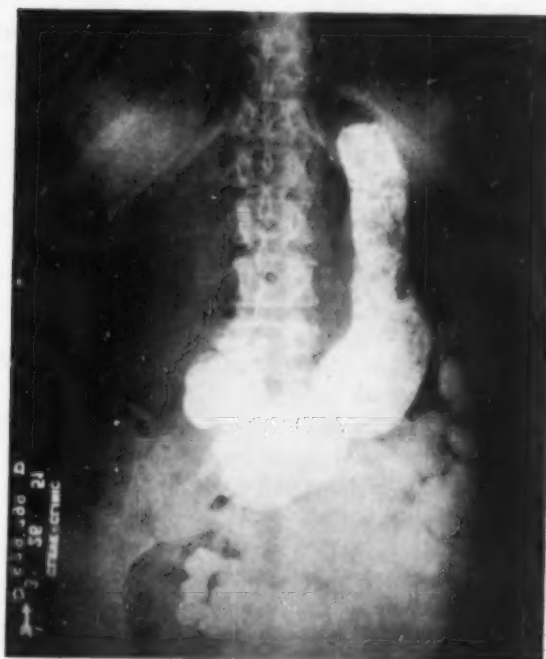
Midnight Calls. The patient who always is a grave emergency. He demands immediate hospitalization but you find that his symptoms have been present usually not only for many months but for many years.

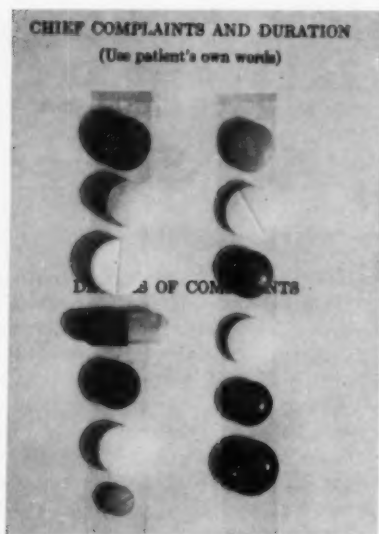
Exaggeration of All Complaints. All pain is terrible, terrific and horrible. We recently saw a patient with a very severe pain and incapacitating symptoms. Again, she did not tolerate any medication. Despite the severity of the



Flat plate of the abdomen showing air filling the stomach, and part of the small and large intestine. There was no obstruction. The patient had marked aerophagia and hypersalivation, constantly spitting her saliva into a handkerchief. This patient's emotional problem was an acute one of only a few weeks duration; she had had a misunderstanding with her son and daughter-in-law. This emotional problem was resolved, with the resulting disappearance of her aerophagia and hypersalivation. The more acute the symptoms and the shorter duration they are, the greater the opportunity we have for successful psychotherapy.

Roentgen examination of the stomach after barium swallow showing multiple filling defects suggestive of polypoid carcinoma or lymphosarcoma. Gastroscopic examination showed no intrinsic disease, but a bezoar. Without operation, we lavaged a starch bezoar from the stomach. This again is a functional disorder simulating organic disease.





Medications taken all at the same time by one patient. Such a number of medications, as well as a history of many operations, suggests functional disease.

pain, she postponed hospitalization for two weeks so she could keep an appointment with the hairdresser. The patient who asks *why*—not once but twenty times. An adequate explanation will still evoke the question *why*.

All the above symptoms suggest functional disease. However, there may be present some symptoms which are suggestive of organic disease and which should alert you and act as an alarm clock.

- Vomiting of food taken five hours previously—hematemesis
- Pain awakening patient at night — pain radiating into back
- Diarrhea at night
- Blood in stool
- Loss of weight must be taken seriously, although it can be functional
- Severity of pain; it is very hard to estimate as we have to depend on what the patient tells us. Functional pain can be very severe.
- Pain that is always in the same location—not shifting
- Attacks of pain of short duration—with

complete freedom of all distress for weeks or months between attacks

- And MOST important—the patient who comes in with *short duration* of symptoms. Always has been well—but a recent onset of symptoms.

Nervous, spastic or irritable bowel can cause exactly the same symptoms as carcinoma of the bowel. But, the patient with a nervous bowel has usually had it a long time. The patient with a carcinoma usually has had symptoms for only a short time. Duration of symptoms is most important.

V. Physical Signs of Functional Disease

Physical examination and careful observation of the patient and his reactions during examination is most helpful.¹⁶

- The mother that is always present with a teenager.
- A sixty-year-old patient trying to look and behave like 25.
- “Plucked” eyebrow sign (Gardner sign).
- Sitting on the edge of the chair anticipating each question—much like a hyperthyroid.
- The wife or husband who is present and answers all the questions for the patient. An



“Now! May I have your version of your symptoms?”

The oversolicitous spouse, who does not let the patient say anything, gives us insight into the family and home relationship, into the patient's personality and sometimes into the reasons for his complaints.

oversolicitous spouse or relative. You are familiar with the patient—usually one of us beaten, down trodden males—who never gets a chance to tell his story.

What else do you need to make a diagnosis?

- Pulse-tachycardia may be elevated with nervous tension.

- The blood pressure may be slightly elevated and the patient may have a mild fever.

- Sighing respiration; patients who gasp for breath; patients who hyperventilate;—with reproductions of the symptoms of giddiness, dizziness and faintness during auscultation of the chest.

- Either over modesty or exhibitionism, with draping of the sheet and pointed toes. Posing as Marilyn Monroe.

- Blushing may be a sign of nervous tension as well as dermographism, urticaria and neurotic excoriations.

- "Puddle" sign on the examining table due to increased axillary sweating; hyperhidrosis and wet palms.

- The patient who wears dark glasses inside a building or when cloudy; that patient is hiding and withdrawing from you and reality.

- The patient who has severe pain with a smile.

- Severe dental caries — patients are frequently too nervous to visit the dentist.

- Those with extremely overactive gag reflexes.

- Those patients with extra systoles and an overactive heart in the absence of any heart disease and hyperthyroidism.

- Examination of the abdomen can show multiple scars from the previous operations; aerophagia with an air filled stomach.

- A tender aorta; some hyperreact on the abdominal examination and are tense all over. A ticklish abdomen seldom indicates organic disease (Kantor).

- The lack of muscle spasm despite severe excruciating pain.

- Rectal and proctoscopic examinations can give insight to the patient if he overreacts to the examination.

If you'll take this conversion neurosis off my hands I'll give you two gall bladders and a hysterectomy.



This cartoon demonstrates how disturbing a patient with a conversion neurosis can be to us. These patients are not agitated themselves, but they agitate everyone else—their spouses, their family and their doctors.

- A normal stool in the rectum despite severe diarrhea.

There are many symptoms and many findings of functional disease. There are also many findings on physical examination that suggest organic disease — such as jaundice, enlarged liver etc. You are so familiar with these findings that we will not mention them further.

VI. Treatment

What is the role of the physician? The parents and family are the most important in causing conversion.

First, the physician can play a role in producing conversion by diagnosing organic disease when it is functional. The physician can produce conversion by over-treatment.

The physician has a very definite role to play in avoiding converting a simple anxiety state to chronic anxiety, hysteria, and finally conversion. First he treats the simple anxiety state, avoiding the diagnosis of organic disease when absent. He avoids extensive medical programs, drugs, injections and operations for functional disease. An explanation to the patient of the physiological basis of nervous ten-

sion and emotions, i.e. smooth muscle spasm, vasoconstrictor spasm and secretory changes, can be a help. *An example can be given to the patient of how nervous tension causes organic disease such as hypertension and ulcer. This they can understand. It is a short step from this to explain how the same nervous tension can cause pain.*

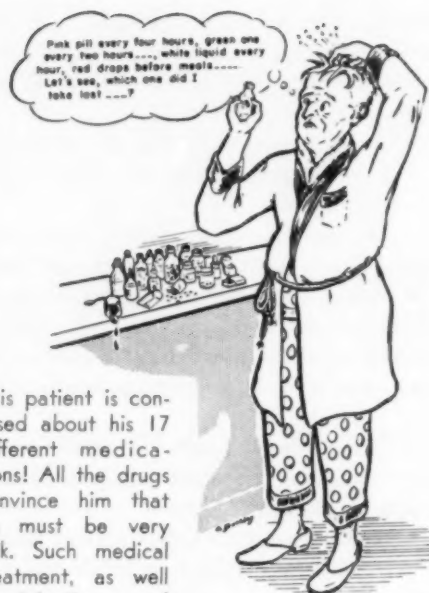
Alvarez said in his column, and I quote, "A few surgeons think by removing a silent fibroid they can cure a woman's sick headaches, or feelings of fatigue, or nervousness or her depression or her backache. There is no operation that will change a sickly Pomeranian into a powerful bulldog." An extensive medical program, injections, and the prescribing of many drugs can cause conversion.

In treatment the diagnosis must be made first. The condition of nervous tension and functional stomach and bowel distress must be recognized. Adequate diagnostic studies are most important. Superficial examination is not sufficient even though you may know the diagnosis from the history. Adequate studies to exclude cancer, since many of these patients believe they have cancer, can be of therapeutic value as well.

Tell the patient of the absence of organic disease, of the diagnosis of nervous tension and functional disease.

Explain to the patient the lack of any relationship between imagination and their symptoms. Explain the mechanism of nervous tension causing symptoms. Discuss with the patient and if possible with the spouse and relatives, home factors causing tension — the past history such as upbringing and childhood training, work and economic factors. The relatives, the spouse when interviewed alone, try to reconcile home differences and may give added insight to the patient's problem. The understanding and cooperation of the family is also helpful in treatment.

Change as many bad habits as you can. Control excess in coffee, alcohol, tobacco and eating. A change of work habits may help. Ask them to relax a few minutes every hour and cut down the rush and resign from some



This patient is confused about his 17 different medications! All the drugs convince him that he must be very sick. Such medical treatment, as well as injections and operations, can further aid in the development of a conversion mechanism.

clubs. If a patient is on the nightshift, perhaps you can transfer him to dayshift. Stimulate other interests in the patient. Develop hobbies, and vacations as many may not have taken time for vacations. Also recommend recreation and regular exercise. When the above fails, you may use symptomatic treatment, sedation, tranquilizers, antispasmodics—but all the above with the patient's knowledge, you are primarily treating his nervous tension and not an organic disease.

The time involved in this is considerable. The financial return from the time involved is poor. However, the response of the patient can be most gratifying. You may save a life. You may save the patient much misery and expense in both medications and possible operations. An unhappy, useless life may be made useful and constructive. It is not necessary for us to be psychiatrists to help these patients—a little understanding, a little listening and common sense. This is time very well worth spending.

Bibliography

1. Brown, C. H.: The nervous patient with the nervous stomach. *J. Okla. State Med. Assoc.* 51:697-712, 1958.
2. a. Schindler, J. A.: How to Live 365 Days a Year. *The American Weekly*, (March 6) 1955, Pp. 12-13.
b. Schindler, J. A.: How to live a hundred years happily. Talk given at University of Wisconsin, Feb. 3, 1949.
c. Schindler, J. A.: How to Live 365 Years a Year. New York: Prentice-Hall, Inc., 1954.
3. Bockus, H. L., and Willard, J. H.: Irritable or unstable colon. *Nebraska M. J.* 18:321 (Sept.); and 375 (Oct.) 1933.
4. Andreson, A. F. R.: *Office Gastroenterology*, Philadelphia: W. B. Saunders Company, 1958.
5. Hendrick, B. J.: *Statesmen of the Lost Cause*. Boston: Little Brown & Company, 1939.
6. a. Collins, E. N.: Diagnosis and treatment of irritable colon; physiologic, local irritative and psychosomatic factors. *M. Clin. North America* 32: 398-407 (March) 1948.
b. Collins, E. N.: Functional indigestion. *Pennsylvania M. J.* 55:21-26 (Jan.) 1952.
c. Collins, E. N., and Van Ordstrand, H. S.: Review of 1,000 consecutive cases of irritable colon; its simulation of surgical conditions and treatment. *Cleveland Clin. Quart.* 8:67-78 (April) 1941.
7. Weiss, E., Olin, B., Rollin, H. R., Fischer, H. K., and Bepko, C. R.: Emotional factors in coronary occlusion. *A.M.A. Arch. Int. Med.* 99:628-641 (April) 1957.
8. Russek, H. I., and Zohman, B. L.: Relative significance of heredity, diet and occupational stress in coronary heart disease of young adults; based on an analysis of 100 patients between the ages of 25 and 40 years and a similar group of 100 normal control subjects. *Am. J. M. Sc.* 235:266-277 (March) 1958.
9. Sullivan, A. J., and McKell, T. E.: *Personality in Peptic Ulcer*. Springfield: Charles C. Thomas, 1950.
10. a. Cannon, W. B.: *Bodily Changes in Pain, Hunger, Fear, and Rage. An Account of Recent researches into the functional of emotional excitement*. Second Edition. New York: Appleton, 1929.
b. Cannon, W. B.: *The Wisdom of the Body*. New York: W. W. Norton and Company Inc., 1932.
c. Cannon, W. B.: The role of emotion in disease. *Ann. of Int. Med.* 9:1453-1465 (May) 1936.
11. Dunbar, H. F.: *Emotions and Bodily Changes; A Survey of literature on Psychosomatic interrelationships*. 1910-33. New York: Columbia University Press, 1935, P. 595.
12. Beaumont, W.: *Experiments and Observations on the Gastric Juice and the Physiology of Digestion*. Facsimile of the original edition of 1833. Cambridge: Harvard University Press, 1929.
13. Machella, T. E., Dworkin, H. J., and Biel, F. J.: Observations on splenic flexure syndrome. *Ann. Int. Med.* 37:543-552 (Sept.) 1952.
14. Wolf, S., and Wolff, H. G.: *Human Gastric Function: An Experimental Study of a Man and His Stomach*. New York: Oxford University Press, 1943.
15. Grace, W. J., Wolf, S., and Wolff, H. G.: *The Human Colon: An Experimental Study Based on Direct Observation of Four Fistulous Subjects*. New York: Paul B. Hoeber, Inc., 1951.
16. Lovshin, L. L.: Signs that aid in diagnosing functional disease. *Postgrad. Med.* 19:526-532 (June) 1956.

2020 East 93 Street

"MEDICAL TEASERS"

A challenging crossword puzzle
for the physician

page 47a

*An evaluation
of surgery
for acquired
valvular disease
of the heart*

VALVULAR HEART

JOHN STORER, M.D., Cleveland Ohio

About ten years have passed since the flood gate of surgery for valvular disease of the heart was opened by the first successful mitral commissurotomy. In this time a veritable army of surgeons have attacked these lesions with an array of new procedures. Articles describing new techniques for treating valvular disease have appeared in the literature with great frequency. It has been realized by the originators that a sufficient time had not elapsed in many cases for proper evaluation of the surgical procedure proffered. However, because of the widespread frequency of valvular heart disease and the significant morbidity and mortality which could be ultimately anticipated in great numbers of patients, it seemed that an urgent need existed for well documented definitive surgical techniques. Thus it was that some techniques were tried but briefly and discarded in favor of others. With the advent of total body perfusion and direct open heart repair, certain cleverly conceived "blind" procedures have been doomed to disuse. At least at this juncture one is able to have obtained a certain perspective and can evaluate objectively the results of a great variety of surgical attacks on a great many patients. It appears certain however that no final answers have been written and that now is merely a convenient time for reflection and does not represent the consummation of the great effort. A great vista no doubt lies ahead and those lesions which

probably can only be completely satisfactorily treated by total valve replacement or total cardiac replacement, represent the area to be conquered. The marked reduction in the incidence of rheumatic fever suggests that further efforts at prevention may preclude the necessity for many of these elaborate techniques.

The essential acquired valvular abnormalities of significance to the physician and the cardiovascular surgeon are those of the mitral and aortic leaflets. An attempt will be made to crystallize current concepts concerning the treatment of and the indications for surgery, together with the anticipated results for stenotic and incompetent lesions of the mitral and aortic valve.

Mitral Stenosis

Until the advent of cardiovascular surgery there was no way of telling whether mitral stenosis existed as a pure entity or if indeed it was invariably associated with mitral insufficiency. It has now been well established that mitral stenosis does occur in a significantly great number of cases in the pure state, completely unassociated with mitral insufficiency. This can easily be ascertained during surgery by placing the index finger directly over the mitral valve. During systole any regurgitant

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DISEASE

jet can be easily palpated. There have of course been methods suggested in order to clarify this situation preoperatively. Certainly right-heart catheterization has not given valid clinical data to substantiate the presence or absence of mitral insufficiency in a given individual. Catheterization of the left side of the heart by direct puncture of the left atrium with a specially designed needle and the passage through it of fine tubing into the atrium, left ventricle and aorta, likewise has not given unchallengeable data in this regard. The contour of the pressure curve is not reliable in differentiating mitral stenosis from mitral insufficiency. A gradient in pressure across the mitral valve of 5-30mm. of mercury is usually demonstrated in the patient having stenosis. Perhaps the most helpful maneuver has been direct opacification of the left ventricle by percutaneous puncture and dye injection of this chamber. With film recording the regurgitation of blood through the incompetent mitral valve can be documented in many instances. This procedure has been found to be fairly safe and is not technically difficult to perform. However, it is currently our opinion that it should not be performed in a routine fashion. One cannot minimize the importance of making a correct preoperative diagnosis. The surgical attack must be planned in terms of this evaluation.

The time honored practice of classifying

patients with mitral stenosis in one of four categories appears to have been well founded and of great help. In Group I are those patients without clinical symptomatology who have auscultatory evidence of mitral stenosis. The heart is not enlarged in these patients and there is no limitation in physical activity. In Groups II and III the patients are more severely incapacitated and again have clinical symptomatology to substantiate the diagnosis of mitral stenosis. Group II are stable, while Group III are deteriorating. In Group IV are those patients with severe mitral stenosis who are in failure and cannot be rendered asymptomatic by conventional therapeutic means. There is pretty well unified opinion concerning the selection of candidates from these four groups. Many cardiologists and cardiovascular surgeons have felt that Groups II and III represent the ideal candidates and that Groups I and IV are not surgical candidates for obvious reasons. It is our feeling that mechanical relief of the valvular stenosis represents the only chance these patients have for survival. Therefore if after evaluation of the Group IV candidate it seems that there remains some myocardial integrity, admittedly a nebulous quality and more guessed at than not, we advise a surgical attack. These patients obviously have manifestations of cardiac decompensation in tissues throughout the body and many have passed the point of no return. A surgical attack on such patients is of course associated with a high mortality.

A significant number of patients fulfilling the criteria of Group I are seen who lead a completely normal life span without ever having significant symptomatology. To subject them to a procedure which has a case fatality rate of even less than five percent does not seem justified at this time. The patients in Groups II and III represent for the most part ideal candidates for surgery and can be expected to have a eighty to ninety percent chance of having an excellent result and should have a ninety-five percent chance of surviving the operative procedure. The single factor most responsible for fatality in these patients has been the development of cerebral embolization dur-

ing manipulation of the valve. This complication has been reduced drastically by the routine occlusion of the great vessels during all phases requiring instrumentation or manipulation of the valve leaflets.

The procedure which has received the widest use has been that in which the valve is approached through the left auricular appendage. Inspection of the appendage prior to entry of the finger for thrombotic material is routinely carried out. The valve is then opened either by digital or instrumental manipulation along the lines of the commissures. A satisfactory opening in most instances can be obtained. However, many patients have sub-valvular fusion of chordae tendineae and papillary muscles which necessitates more than commissurotomy for an optimum result. This can in most instances be adequately done by this blind technique. It appears certain that actual tissue separation must be obtained if the commissurotomy is to have any degree of permanency. Mere dilatation of the valve orifice with a finger without tissue separation is doomed to recurrence of stenosis and undoubtedly gave rise to the opinion in many quarters that mitral stenosis was associated with a high degree of early recurrence. That there is recurrence in a certain small percentage of cases is incontrovertible but it is our feeling that the incidence of frank re-fusion of the commissures when they have been adequately separated is not high. Dissatisfaction with this type of commissurotomy has led at least one group to advocate the so-called right-sided approach to the mitral valve in all cases. This technique entails the dissection of the posterior auricular groove and insertion of the finger into the left atrium through this dissection. This avoids entry through the possibly thrombosed left auricular appendage and diminishes the frequency of dislodged emboli and the consequences thereof. It also can be done through a smaller incision. There seems little other to recommend this procedure, however. Certain other workers feel that because of the occasional technical difficulty in relieving adequately the entire stenotic component, the use of total body per-

fusion and a direct attack on the mitral valve should be carried out routinely. Currently we do not subscribe to this opinion however. Thinking in regards to this will undoubtedly be clarified in the future. It may be that in patients with a heavily calcified valve that this type of attack should be made. In those patients in whom calcification of the valve is not present or minimal, digital and instrumental commissurotomy involving the so-called blind method appears to be completely satisfactory.

Mitral Insufficiency

The surgical treatment of mitral insufficiency has been fraught with difficulty since the first attempts were made. Because no single procedure has yet been as well founded on a sound physiologic foundation as mitral commissurotomy, there have been a multitude of procedures employed in an attempt to regain mitral competency. These methods have been spectacularly unsuccessful with the exception of the cross polar plication and circumferential plication of the annulus. A modification of these techniques is used currently by most surgeons using total body perfusion and direct vision correction of the deformity.

Again the patient with mitral insufficiency may be placed in one of four groups similar to the patient with mitral stenosis. The suitable candidates for surgery are thought likewise to be those patients in Groups II and III. Groups I and IV are probably best excluded for obvious reasons. The patient with mitral insufficiency is thought to represent a more grave situation as regards a surgical effort since, he has compromised left ventricular integrity. Unlike the mitral stenotic, the patient with regurgitation has left ventricular enlargement. This fact is best demonstrated by the electrocardiogram. Attempts to delineate the left ventricle on the roentgenogram in patients with combined ventricular enlargement are notoriously inadequate and associated with a high degree of inaccuracy. In our opinion, given a patient with clinical symptomatology and auscultatory phenomena suggestive of mitral disease, the electrocardiogram repre-

sents a most helpful tool to document the presence of mitral insufficiency. This is concluded simply by ascertaining the presence or absence of a left heart strain pattern. Other refined techniques have been used as described previously but over the years they fail to add a great deal to this simple and safe laboratory method. Patients with mitral insufficiency falling into Groups II and III should have an attempt at surgical correction. The method which is associated with the highest degree of safety and in our hands the most satisfactory clinical result, is repair of the incompetent mitral valve by a direct attack. This necessitates total body perfusion and more elaborate preparation than is necessary for mitral commissurotomy, thus the need for accurate pre-operative appraisal. A bilateral sub-mammary transverse sternotomy incision is used, although in some instances a right sub-mammary thoracotomy has been found to be satisfactory. Total body perfusion is accomplished in the routine fashion with arterial cannulization of the femoral artery. The right auricular wall is opened vertically and then the auricular septum is incised. This incision is extended for a distance of several centimeters so that good exposure of the mitral valve is obtained. In most patients with mitral regurgitation, the incompetent area is in the region of the postero-medial commissure. By approximating the posterior portion of the annulus, the leaflets are drawn together and the incompetency corrected. Certain sub-valvular manipulation may be carried out and chordae and papillary muscles freed, thereby adding greatly to the mobility and usefulness of the valve leaflets. If incompetency exists in more than the posterior area, the entire annulus may be plicated or certain other portions of it may be plicated to shorten the circle and draw the valve leaflets together. It is our custom to allow the cardiac action to continue during these manipulations, since the area of incompetency can be visualized directly and assessment of the adequacy of the surgical correction can be obtained in a more physiologic state than would be present if one worked

on an arrested heart. If aortic insufficiency is present, however, we have found it necessary to produce arrest since the regurgitation of blood through the incompetent aortic valve obscures the field so greatly that it cannot be carried out satisfactorily. A significant population has not been subjected to this type of reparative surgery to draw a valid conclusion concerning mortality data and long term results. However, we have been gratified with the ease with which patients in Groups II and III have gone through this operative procedure and in periods up to two years have been gratified with the overall clinical improvement.

Aortic Stenosis

The aortic valve being somewhat more inaccessible than the mitral valve has been understandably more difficult to treat surgically. However, feasible surgical attacks have been evolved as more accurate diagnostic methods have become available. Prior to the advent of left-heart catheterization, a brachial artery tracing was a most helpful physiologic determination. The presence of a delayed peak of systole and an anacrotic notch are characteristically found in aortic stenosis. However, these phenomena cannot be accurately reflected in terms of the severity of the gradient across the aortic valve. With left-heart catheterization, a catheter can be passed into the left ventricle where pressures are obtained and through the aortic valve into the aorta and the gradient established. Under normal circumstances there is no change in systolic pressure across the valve. When partial obstruction exists at the site of the valve a systolic pressure in the left ventricle is in excess of the systolic pressure in the aorta. It is not uncommon to obtain gradients over 50 mm. of mercury. The orifice must be narrowed to 1 cm. before significant physiologic obstruction exists.

Most stenotic aortic valves are the site of calcific deposition. This is often easily demonstrable by radiologic methods. Isolated left ventricular hypertrophy is likewise often clearly visualized by this method. The auscultatory

phenomena consist of a systolic murmur heard best in the second right and third left interspaces with transmission to the great vessels. Often a systolic thrill is palpable over the precordium as well as over the great vessels. Diminution in the second aortic sound is thought to be consistent with this lesion since the valve has lost its resiliency and makes no sound on closing.

Aortic stenosis is one of the most treacherous of all cardiac diseases. Sudden death is not uncommon. This probably results from diminished coronary artery filling and alterations in oxygen tension throughout the myocardium. It is well known that when left heart failure develops due to aortic stenosis, the duration of life is markedly shortened. Most of these patients are dead within eighteen months following the first onset of failure. This suggests urgency in treatment when failure has been present. The individual who has not developed congestive failure must be carefully evaluated in terms of surgery. It is our feeling that any patient who has symptomatology due to aortic stenosis under the age of fifty should be considered a surgical candidate. Past the age of fifty the patient should be subjected to left-heart catheterization and evaluated very carefully.

It is in this age group that concomitant arteriosclerotic heart disease may obscure the picture. Angina, fatigue, vertigo and many other symptoms may be caused by either lesion. A gradient across the valve in excess of 50 mm. of mercury, in such cases, is indicative of significant stenosis but does not quantitate the extent of significance of the arteriosclerotic component. Clinical judgment in the assessment of physiologic versus chronologic age must be brought into play to the fullest to effect a sound decision regarding therapy. Currently we do not feel that surgery is indicated in the individual past sixty-five years of age.

The earliest surgical attack on the aortic valve made use of a specially designed instrument incorporating a tri-radiate dilating mechanism which was thrust through the left

ventricle into the aortic valve and dilated. It was hoped that the mechanism would actually fracture the fused commissures and thereby relieve the obstructive factor. That this was ever accomplished is of great question. All postoperative studies done in patients subjected to this type of procedure failed to disclose evidence of abolition of the gradient across the aortic valve. In addition the mortality associated with this procedure was high. The next surgical technique evolved was one which made use of a supra-valvular approach. A large piece of pericardium or nylon prosthesis was applied to the aorta and a purse string suture placed in this appendage and the valve approached through it. An instrument could be inserted along with the finger and the valve cut. This likewise was an unsuitable method. The large calcific deposits almost uniformly present could not be removed. Because of these shortcomings the feasibility of these blind procedures was not great and an adequate attack on the valve awaited the opportunity to incise the valve under direct vision. Total body perfusion has given us the opportunity to satisfactorily attack this lesion. Currently the patient is subjected to total body perfusion and cardioplegia. Some workers feel that perfusion of the coronary arteries with oxygenated blood should be carried out during asystole but we have not used this uniformly. We try to keep the period of cardioplegia under thirty minutes and feel that there is a margin of safety if this time interval is followed closely. Through an aortic incision, the commissures are incised up to the valve ring. Often in the sinuses of Valsalva in the mid-portion of the leaflets is a rigid bar of calcium which partially immobilizes the leaflets. We have felt that removal of this material is necessary for a good functioning valve. The valve is trimmed in as much as can be done without endangering it to unnecessary tears. After the incision in the aorta is closed, systole is resumed.

These early efforts are encouraging but one must wait the passage of time for accurate postoperative evaluation. An effective procedure

must significantly decrease or abolish the gradient.

Aortic Insufficiency

Aortic insufficiency due to rheumatic fever is equally as treacherous as aortic stenosis. This defect is characteristically associated with marked increase in the size of the left ventricle, wide pulse pressure, basal diastolic murmur and classical radiologic and electrocardiographic evidence of left ventricular hypertrophy. There is little difficulty in establishing the diagnosis in moderately far advanced disease. The diastolic pressure offers a good index as to the severity of the lesion. The patient with a diastolic pressure of 0 is usually thought of as having a "wide-open" regurgitation. He is in need of urgent mechanical help. After the development of failure, the onset of death usually follows in a matter of months.

Numerous surgical attacks have been proposed to improve the competency of the aortic valve. The one gaining the greatest popularity and associated with possibly the best clinical result has been the insertion of a plastic valve distal to the left subclavian artery. The early valves were quite noisy and bothersome to the patient as the plastic ball would bounce back and forth with each systole and cause a noise audible to people in the same room. A noiseless valve is now available which is a great improvement over the former method. However there are definite shortcomings associated with the use of this prosthesis. It is placed distal to the left subclavian artery and admittedly renders competency only to the circulation distal to the valve. This does not include that part of the circulation supplied by the innominate, left common carotid and left subclavian arteries which comprise thirty to forty percent of total body circulation. Then

too, coronary artery filling in diastole is not enhanced by the insertion of such a prosthesis and any symptomatology due to this feature is unchanged by this method. Many instances of development of subacute bacterial endocarditis and consequent rupture of the aorta at the site of the prosthesis have been reported two and three years following insertion.

Other prosthesis have been developed, some very similar to the aortic valve, which have been designed for insertion into the aorta proximal to the coronary arteries, completely replacing the deformed valve. Unfortunately to date a suitable number of patients have not been subjected to this procedure so that long term data is not available.

A final method has been evolved which has been called bicuspidization of the aortic valve. This method entails resection of one cusp of the valve together with a V-shaped section of aorta. The remaining two cusps are then approximated and the aorta closed and in some instances quite ideal aortic competency has been obtained. There are drawbacks however with this method since it is only applicable when the two coronary artery bearing cusps have enough flexibility to act as a competent bicuspid valve. The only cusp available for resection is the non-coronary artery cusp for obvious reasons.

Surgery for aortic insufficiency is currently not well crystallized. An occasional brilliant result has been obtained following the use of one of the aforementioned procedures, but the long term data is not yet available for the latter methods. Complete replacement of the aortic valve with a competent prosthetic of forty to fifty year durability free from tissue reactability represents the optimum treatment of this disease. It is hoped that such a prosthesis will soon be available.

Conclusion

An attempt has been made to review certain concepts of valvular disease from the viewpoint of the cardiovascular surgeon. This information

it is hoped, can be interpreted in turn by the interested physician and be of some help in evaluating the patient in regard to the necessity

and feasibility of surgery. We have been responsible for devising none of these aforementioned techniques and hope to have been completely objective in our evaluation. For the purpose of brevity and lucidity we have purposely omitted the names of the great sur-

gical pioneers who have been responsible for devising these surgical methods.

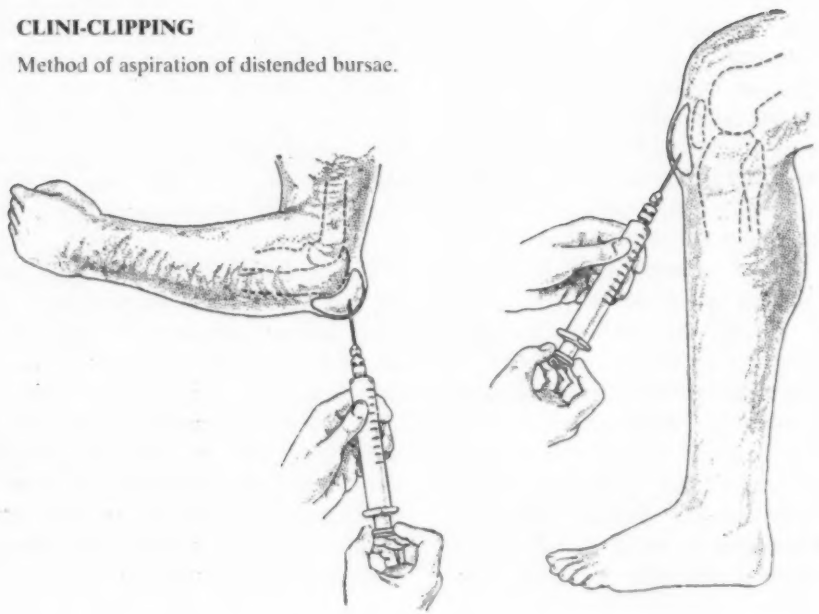
No mention has been made of the recognition and management of multivalvular disease, as this subject warrants a separate consideration.

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CLINI-CLIPPING

Method of aspiration of distended bursae.



Mast Cell Disease

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Ehrlich first described mast cells in 1877 and later differentiated them from blood basophils. He noted that some connective tissue cells contained granules which stained metachromatically. The term metachromatic as first introduced by Ehrlich meant "a staining of the mast granules in a tone different than that possessed by the dye."¹ For example, blue dyes give the granules a reddish tone and red dyes a yellowish tone.¹

Contemporary investigators have presented evidence indicating that mast cells produce heparin, histamine, hyaluronic acid and serotonin.²⁻⁵ For many years, mast cells were primarily associated in man with one lesion, urticaria pigmentosa, and until recently this condition was considered primarily a dermatological disease. The first autopsy on a case of urticaria pigmentosa in which systemic lesions were noted was described only as late as 1949.⁶ Since then evidence of mast cell involvement of systemic organs has been reported repeatedly and the term "mast cell disease" has been introduced. Mast cell disease may be classified and described under the following headings:

1. Primarily a Dermatological Disease

In most cases of urticaria pigmentosa, the significant findings are confined to the skin. The disease occurs principally in childhood and usually disappears at adolescence. The early lesions may be urticarial and occasionally bullous, but the characteristic lesion is exhib-

ited as a pigmented macule or nodule.

The lesions vary in color through all shades of brown, yellowish-brown and reddish-brown. Microscopically, they are characterized by accumulations of mast cells in the dermal connective tissue. A significant clinical manifestation is the tendency of the pigmented lesion to become red, swollen and pruritic when it is rubbed briskly. General enlargement of the lymph nodes has been noted in a number of cases.⁷

2. Dermatological Disease with Systemic Changes

Ellis, 1949, reported the autopsy finding in a one-year-old patient who, in addition to the characteristic skin lesions, had hepatosplenomegaly. Histologically, many viscera and supporting tissues were infiltrated with mast cells. Since then others have noted similar findings. X-rays of bones in some cases have shown zones of osteoporosis with thickening of the bony trabeculae of the skull, pelvis and humeri. Biopsies of the bone in these areas have revealed the presence of mast cell granulomas.^{8, 9}

Instances of possible mast cell leukemia have been reported with some patients presenting skin lesions similar to those of urticaria pigmentosa.¹⁰ These patients have not shown marked elevation of their total white blood cell count peripherally but have shown elevated

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percentages of mast cells and other unidentified cells. Aspirations of the bone marrow in these patients have revealed mast cell counts varying from eighteen to twenty-five percent.^{10, 11} At autopsy, involvement of various organs by mast cells has been observed including liver, spleen, lymph nodes, bone marrow and thymus.

3. Primarily a Systemic Disease in Which Skin Lesions May Be Absent

Splenic mastocytosis has recently been described.¹² In this case, the organ primarily involved by mast cells was the spleen. The patient had no dermatological findings but evidence of hyperheparinemia and hyperhistaminemia as well as hypersplenism was apparent. Chemical analyses of the spleen revealed greatly increased quantities of heparin and histamine. It is interesting to note that this patient presented himself with symptoms similar to those which have been described in

cases of carcinoid syndrome. He complained of bizarre flushing attacks of sudden onset, characterized by blood-shot eyes, pulse pounding rapidly in his ears, retrobulbar headache, nasal obstruction, rhinorrhea, wheezing, diaphoresis and nausea. This patient remains well approximately two years following his splenectomy.

In view of the presence of heparin and histamine in mast cells, patients may present themselves showing manifestation of increased quantities of these substances. These may produce bizarre clinical findings. This is particularly true in the case described above. Mast cell involvement must be considered in patients exhibiting evidence of hypersplenism.

With knowledge of the presence of heparin in mast cells and the known clearing action of heparin on lipid blood, there have been recent studies of the relation of mast cells to arteriosclerosis. The full significance of this relationship must be further evaluated.¹³

Summary

Knowledge and significance of the mast cell has been broadening in recent years.

Formerly it was believed that this cell was primarily associated pathologically with urticaria pigmentosa. Recently it has been noted

in systemic disease and has even been found producing clinical manifestations without skin findings. Its unique characteristics of producing heparin, histamine and hyaluronic acid may be expected to produce bizarre clinical pictures.

Bibliography

1. Michels, N. A.: In Downey, H., Handbook of Hematology, London, Hamilton, 1938, Vol. 1.
2. Jorpes, J. E.: Heparin in the Treatment of Thrombosis, London, Oxford Univ. Press, 1946.
3. Riley, J. F. and West, G. B.: Presence of histamine in tissue mast cells. *J. Physiol.* 120:528, 1953.
4. Asboe-Hansen, G.: Origin of synovial mucin; Ehrlich's mast cell-secretory element of connective tissue. *Ann. Rheumat. Dis.* 9:149, 1950.
5. Benditt, E. P., Wong, R. L., Arase, M. and Roeper, E.: 5-Hydroxytryptamine in mast cells. *Proc. Soc. Exp. Biol.* 90:303, 1955.
6. Ellis, J. M.: Urticaria pigmentosa; report of case with autopsy. *Arch. Path.* 48:426, 1949.
7. Ormsby, O. S. and Montgomery, H.: Diseases of the Skin, Philadelphia, Lea and Febiger, 1948.
8. Zak, F. G., Covey, J. A. and Snodgrass, J. J.: Osseous lesions in urticaria pigmentosa. *New England J. Med.* 256:56, 1957.
9. Stark, E., Van Buskirk, F. W. and Daly, J. F.: Radiologic and pathologic bone changes associated with urticaria pigmentosa: report of a case. *Arch. Path.* 62:143, 1956.
10. Efrati, P. and Klajman, A., and Spitz, H.: Mast Cell Leukemia? — Malignant Mastocytosis with Leukemia-like Manifestations. *Blood*, 8:869, 1957.
11. Waters, W. J. and Lecson, P. S.: Mast Cell Leukemia Presenting as Urticaria Pigmentosa. Report of a case. *Pediatrics*, 19:1033, 1957.
12. Ende, N. and Cherniss, E. I.: Splenic Mastocytosis. *Blood*, 13:631, 1958.
13. Pollak, O. J.: Mast cells in the Circulatory System of Man. *Circulation*, 16:1084, 1957.

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RADIOIODINE

*Its use in the treatment of
Euthyroid patients with certain
heart, lung, or malignant lesions*

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The use of radioiodine (I^{131}) is well established and universally accepted in diagnosing and treating thyrotoxicosis, especially in those patients who are poor surgical risks. Its use in patients with normal thyroid glands to "take a load off the heart," lungs, blood vessels or brain by decreasing their oxygen requirements is becoming well known; but its use in treating lymphatic leukemia or multiple myeloma is still completely unknown to many physicians. Therefore, it is the purpose of this paper to bring this common modality into greater use for the benefit it might bring to patients with these often incurable conditions including parkinsonism and intermittent claudication.

This report will not add to the already flooded literature on the subject of treating benign conditions of the thyroid gland such as thyroiditis, in which it is of less value than in Graves' disease; nor nodular goiters in which I consider I^{131} contraindicated in patients who are good operative risks because of the incidence of carcinoma therein. However, some mention of the postoperative treatment of carcinoma of the thyroid seems to be in order.



I^{131} and the Thyroid Gland

The isotope of natural iodine is produced by the addition of neutrons to its nucleus. Radioactive iodine retains all of the chemical properties of natural iodine and the cells of the thyroid treat them both alike. Therefore, by starving these cells from natural iodine they selectively absorb the isotope given orally. The oversized, unstable nuclei of the isotope disintegrate at such a rate that half of them decay every eight days. As they do, they emit beta and gamma rays, the latter of which are short x-rays which kill or cripple the cells which absorbed them.

Radioactive isotopes are measured in curies, millicuries or microcuries, a curie being that amount which emits the same number of rays per second as does a gram of radium. Radiation detection instruments such as Geiger-Mueller and scintillation counters are used to determine the percentage of the isotope which is absorbed in one, six, and/or twenty-four

hours by the thyroid. This is called the "percent-uptake" and indicates the avidity of this gland for iodine, a measure of function of the thyroid gland. This avidity must be determined before any treatment with radioiodine is instituted so as to avoid radiation damage to surrounding tissues or radiation thyroiditis which might result in temporary hyperthyroidism and thereby aggravate the original lesion.

Differentiation between primary hyperthyroidism and that resulting from increased thyroid stimulating hormone from the pituitary gland is made by comparing the twenty-four hour I^{131} percent uptake before and after giving triiodothyronine to suppress the latter (thyroid stimulating hormone) when readings in euthyroid patients fall markedly. Differentiation between primary thyrotoxic myxedema and pituitary myxedema is made by comparing the twenty-four hour I^{131} percent uptake before and after the administration of thyrotropin which uptake is unchanged in the former but is increased in the latter.

Carcinoma and the Thyroid

Less than ten percent of carcinomata of the thyroid selectively absorb sufficient radioiodine to effect them. Therefore, complete surgical removal of the gland with all cancerous tissue possible is indicated in every patient who will tolerate this procedure.

A tracer dose of I^{131} is given orally twenty-four hours before the operation, both to determine the percent uptake as well as to provide radioautographs of the tissues removed. Radioautographs are made by placing alternate mounted microtome slices of the specimen on unexposed x-ray films for several hours before developing them. The slices mounted and stained for microscopic study are then compared with the radioautographs to determine whether or not the carcinoma cells have selectively absorbed as much I^{131} as the normal cells of the thyroid which might be present.

Immediately postoperatively, the patient is given a short intensive course of I^{131} treatment to annihilate any aberrant functioning thyroid

cells. The operation is usually followed by an increased pituitary output of thyroid stimulating hormone. This sometimes induces the metastases to pick up enough radioiodine to destroy themselves. If not, ten units of thyroid stimulating hormone (TSH) is administered intramuscularly daily for four days to supplement the endogenous thyrotropin before each dose of one hundred millicuries of I^{131} (followed by thyrotropin, if necessary). This may be repeated monthly unless marked hematopoietic depression or other severe radiation damage appears, as long as there is evidence of I^{131} uptake by the carcinoma. All patients will develop severe myxedema which is treated by desiccated thyroid after completion of I^{131} therapy.

These efforts to enhance iodine metabolism by these metastases has increased their uptake of I^{131} from eight to fifty-five percent. Of the patients who survived their disease long enough to complete the I^{131} treatments, forty-nine percent showed at least temporary arrest or regression of their tumors; but forty percent of them nevertheless died of their disease. Of the remaining eleven percent, six percent have dormant tumor masses, while five percent were well with no evidence of residual cancer from one to four years after I^{131} therapy.

Heart Disease

The isotope of iodine also turns out to be an excellent expedient for suppressing normal thyroid activity in a variety of other clinical conditions. The foremost of these are intractable heart failure and angina pectoris; sixty and seventy-five percent respectively, of which show improvement after I^{131} treatment to induce hypothyroidism to reduce metabolism and therefore the oxygen requirements of the body.

However, this method of therapy cannot be expected to save a moribund patient, because it takes from two to six months to induce hypothyroidism by this method. Those patients with angina pectoris which has been relatively stationary or only slightly progressive over a year or more usually benefit the most. Those with congestive heart failure who show some

evidence of cardiac reserve, such as improvement with bed rest or with the use of digitalis, are usually benefitted by induction of hypothyroidism. No harmful effects have been observed and no contraindications have been found to the relatively small doses of radioiodine to benefit these patients. Corday, Jaffee, Gold and Williams recently reported excellent results with radioiodine in twenty-eight of thirty-three euthyroid patients treated for paroxysmal tachycardia. Only three of these patients failed to show considerable response to this isotope therapy.

The most popular method of administering radioiodine today consists of the oral administration of from five to twenty millicuries per week for a total of thirty to sixty millicuries, depending on the percent uptake by the thyroid.

Two months after the first course of I^{131} , the test of thyroid activity is repeated and, if the I^{131} uptake is above eight percent or the patient has no evidence of hypothyroidism, the procedure is repeated using the same number of millicuries of I^{131} as was given originally.

Symptoms of hypometabolism appear concurrently with signs of improvement in the cardiac condition in two to six months. This irregular delay in results provides a safeguard against the possible effect of suggestion, because the time at which hypometabolism and clinical improvement will occur cannot be predicted by the patient or the physician. When slight puffiness of the face, sensitivity to cold, joint stiffness, arthralgia, or paresthesias occur, six to twelve mgms. of desiccated thyroid are administered orally per day; but this dosage must be adjusted to maintain the patient at the lowest metabolic level at which he has maximum relief from cardiac disease and minimum discomfort from myxedema. Most patients are maintained comfortably with a partial metabolic rate of minus twenty percent on a daily dose of five to thirty mgms. of desiccated thyroid. An occasional patient will regenerate enough thyroid tissue to require the entire procedure to be repeated after discontinuing the desiccated thyroid.

Pulmonary Disease

The palliation provided by hypothyroidism is remarkable in conditions in which the vital capacity of the lungs is impaired, such as pulmonary fibrosis and emphysema, and especially in those instances resulting from pneumoconiosis.

The same procedure is followed in patients with pulmonary disease as described above for patients with heart disease; and the same dosage of I^{131} and of desiccated thyroid are administered in the sequences described there.

Here, also, symptoms of hypometabolism appear concurrently with relief from the respiratory symptoms. Six to twelve mgms. of desiccated thyroid are then administered orally per day, and the dosage of thyroid is adjusted to maintain the patient at the lowest metabolic level at which he has maximum relief from the pulmonary disease, and minimum discomfort from myxedema.

Lymphogenous Leukemia and Multiple Myeloma

An entirely new vista is opened in the field of radiation therapy of generalized radiosensitive malignancies, such as lymphogenous leukemia and multiple myeloma, with radioactive substances. Radiosodium was the first to be used for this purpose, but its short half-life renders it impractical except in clinics close to a source of this isotope. Radiophosphorous is used to treat osseous metastases of breast cancer, polycythemia rubra vera and myelogenous leukemia.

Radioiodine has a longer half-life than radiosodium and has the same faculty of "short range firing" directly into the malignant cells while it is in the circulating blood or body fluids. Storage of I^{131} in the thyroid gland is partially blocked by natural iodine which is administered as Lugol's solution for twenty-four hours before the oral administration of fifty mcs. of radioiodine. This dosage is repeated every week or is adjusted according to the absolute lymphocyte count in the blood in lymphogenous leukemia, and according to x-ray findings, or sternal marrow punctures in

multiple myeloma. Radioiodine is temporarily discontinued when the absolute lymphocyte count is reduced to half of its original number, or the white blood count is reduced to 20,000.

Of course, these patients eventually develop myxedema which is easily controlled by desic-

cated thyroid. The number of case records compiled to date is insufficient upon which to venture conclusions regarding prolongation of life in these patients, but the length of their working life and the comfort of these patients definitely have been increased by this method of radiation therapy.

Summary

Carcinoma of the thyroid is treated with radioiodine only after all benign and malignant cells, which it is possible to remove have been extirpated surgically. Only five percent of patients who survived the treatment are alive and free of evidence of their disease one to four years later.

Seventy-five percent of patients having angina pectoris, sixty percent associated with intractable heart failure and eighty percent with conditions in which vital capacity of the lungs was lowered have been partially relieved by reduction of oxygen requirements of the

body, resulting from a so-called "medical thyroidectomy," produced by the use of radioiodine. Over fifty percent of patients suffering from Parkinsonism and from intermittent claudication are benefited by this method of treatment.

Many patients with lymphogenous leukemia or multiple myeloma are experiencing comfort and an increase in the length of their working lives as a result of "total body radiation" with radioiodine at "close range" after saturation of the thyroid gland with natural iodine.

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A New Histamine Antagonist

*Clinical Pharmacology and Therapeutic
Use of Dexbrompheniramine Maleate*

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The number of antihistaminic drugs now available to the practicing physician is such that, in disorders responsive to histamine antagonists, many agents can be used to produce essentially similar therapeutic effects. It therefore appears that a new antihistamine, added to this already large family of drugs, must offer some significant advantage if it is to achieve much clinical usage.

Claims of greater potency or better tolerance have been made for most of the antihistaminic agents introduced in the seventeen years which have elapsed since Halpern's report on Antergan®.¹ However, clinical experience with numerous antihistamines of varying potency leaves the impression that usually there is no appreciable difference in the frequency of side effects, when these drugs are given in therapeutically adequate dosage. Notable exceptions include chlorpheniramine and brompheniramine, both of which are well established as exceptionally potent and well tolerated antihistamines.

It has been shown that a slight change in the molecular structure of an antihistamine may greatly change its toxicity and therapeutic activity. One of the most significant demonstrations of this was reported in 1949 by Tislow et al.² These authors discovered that the substitution of a chlorine atom in the para position of the benzene ring of pheniramine gave rise to a compound (chlorpheniramine) which was twenty times more active but no more toxic than the parent compound. Subsequent studies with other halogens as substituents in the pheniramine molecule led to the synthesis of brompheniramine, which was found to be at least as active and nontoxic as the chlor-derivative. Kreindler and co-workers³ have evaluated brompheniramine (parabromodylamine) in one hundred patients having various allergic disorders. Their results with brompheniramine closely parallel the experiences of others with chlorpheniramine, with respect to both therapeutic efficacy and clinical tolerance.

The recent resolution of brompheniramine,

TABLE 1 COMPARATIVE ORAL ACTIVITY* AND ACUTE TOXICITY IN GUINEA PIGS

DRUG	MEDIAN PROTECTIVE DOSE (PD ₅₀) MG/KG	MEDIAN LETHAL DOSE (LD ₅₀) MG/KG	THERAPEUTIC INDEX LD ₅₀ /PD	RELATIVE SAFETY
Dexbrompheniramine (Disomer®)	0.10	190	1900	100
DL-Brompheniramine	0.21	180	900	47
L-Brompheniramine	2.85	173	60	3.1
Diphenhydramine	4.0	280	70	3.7
Tripeleennamine	3.2	150	47	2.5

*The test drugs were administered orally in logarithmically spaced doses to fasted guinea pigs one hour prior to challenge with histamine dihydrochloride (1.1 mg/Kg). A median protective dose [PD₅₀] was then determined

from the number of survivors in each test group. All untreated control animals died in asphyxial collapse within 5-6 minutes.

a racemic compound, into its dextrorotatory and levorotatory isomers was followed by the demonstration that its antihistaminic activity resides almost exclusively in the dextro-isomer. The maleate salt of this active fraction, for which the generic name dexbrompheniramine maleate has been adopted, was made available to us for clinical investigation. It is the purpose of this report to describe our experiences with the use of this new drug.

Chemical and Pharmacologic Data

Dexbrompheniramine maleate (Disomer®)[†] is the dextro-isomer of racemic brompheniramine maleate, the structural configuration of which may be represented as shown below.

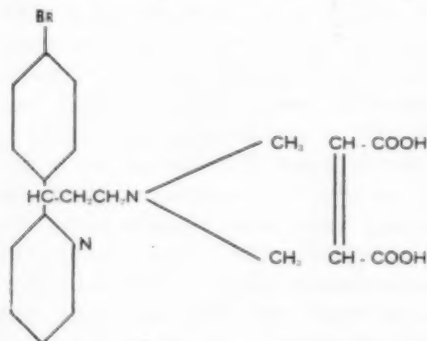
Assays of oral antihistaminic activity in guinea pigs have demonstrated that Disomer (the d-isomer) is approximately twice as potent as racemic brompheniramine and about thirty

times more potent than the l-isomer; in studies of acute oral toxicity in guinea pigs, Disomer has been found to be slightly less toxic than the racemic mixture or the L-form.⁴ These findings, together with comparable experimental data for two of the more widely used antihistaminic drugs, are summarized in Table I.

Clinical Pharmacology

Bain⁵ has shown that "the reaction to an intradermal injection of histamine is modified if the injection is repeated at an interval after the oral administration of an adequate dose of a histamine antagonist." One of us (D.L.L.) used a technic, similar to the procedure employed by Bain, to estimate the degree and duration of histamine-antagonizing response to single oral doses of Disomer. The test was carried out in ten normal adult subjects with no known history of allergy. All received an initial intradermal histamine injection on the volar surface of the forearm. Ten minutes after the injection, the cross-diameters of the histamine-induced flare were carefully measured. The average of the two diameters was used as an index of flare size. Following the control reading, five subjects were given 2 mgms. of Disomer by mouth, and the remaining five subjects received oral doses of four mgms. Intradermal injections of histamine were then repeated at hourly intervals and the flare sizes estimated as previously.

Figure I shows the results of these observations. It is apparent that a single 2 mgm. dose



[†] Supplied by White Laboratories, Inc., Kenilworth, New Jersey.

of the drug produces an initial histamine-antagonizing response within one hour and a maximum response in about three hours, after which there is a gradual diminution of effect on the size of the flare until it approximates the control size. The pattern of response to an oral dose of 4 mgms. of Disomer is quite similar, except that the histaminic-antagonizing effect is somewhat longer and reaches a maximum approximately one hour later. These findings suggest that effective antihistaminic action would be maintained with single doses of 2 mgms. every three or four hours.

The clinical toxicology of Disomer was explored in six healthy male volunteers from a prison population. The drug was administered in the form of 2 mgm. tablets. Each subject was given a daily dose of 8 mgms. during the first week. The daily dose was then raised by increments of 8 mgms. during each of the succeeding weeks until a dose of 32 mgms. was reached. All subjects remained on this maximum dose level for a period of two weeks. Blood counts, urinalyses and physical examinations were performed at the start, at two-week intervals, and at the end of the trials.

At no time during the experiment did any subject complain of drowsiness, nausea, dizziness or other untoward effects. All the subjects were on work details and continued to carry out their normal duties throughout the experiment. Physical examinations, blood counts and urinalyses in each subject revealed no significant changes.

Therapeutic Evaluation

Over a period of seven months, Disomer was administered to a total of one hundred and seven patients (eighty-eight private and nineteen clinic patients) with various dermatoses consisting primarily of atopic dermatitis, contact dermatitis and neurodermatitis. Table 2 summarizes the dermatologic diagnoses and age distribution in this series.

Eleven patients in the younger age groups were given the drug in the form of a syrup containing 2 mgms. per 5 cc. The remaining patients were given 2 mgms. tablets of the

FIGURE 1. Depression of Intradermal Histamine-Produced Flare by Orally Administered Disomer.

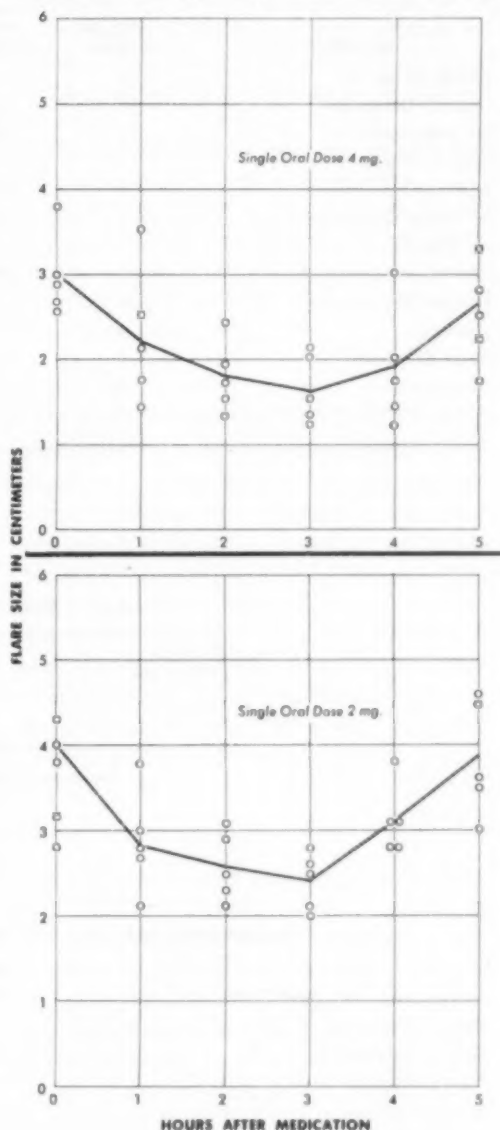


TABLE 2 DIAGNOSTIC FINDINGS AND AGE DISTRIBUTION

DIAGNOSIS	NO. OF PATIENTS	AGE IN YEARS						
		LESS THAN 1	1-5	5-10	10-20	20-40	40-60	OVER 60
Atopic Dermatitis	37	1	2	2	13	15	3	1
Contact Dermatitis	15	0	0	1	1	7	5	1
Neurodermatitis	11	0	0	1	0	2	3	5
Winter Eczema	3	0	0	0	1	0	1	1
Nummular Eczema	4	0	0	0	0	3	0	1
Infectious Eczematoid Dermatitis	1	0	0	0	0	1	0	0
Eczematoid Dermatitis	11	0	0	0	1	4	5	1
Papular Urticaria	6	1	1	2	0	2	0	0
Urticaria	5	0	1	0	0	1	3	0
Drug Eruptions	4	0	0	0	2	1	1	0
Miscellaneous	10	1	2	1	0	5	1	0
Totals	107	3	6	7	18	41	22	10

TABLE 3 DURATION OF THERAPY

Weeks of Therapy	1	2	3	4	5	6
Number of Cases	37	31	16	12	6	5
Total cases 107						

TABLE 4 THERAPEUTIC RESULTS AND SIDE EFFECTS OBTAINED WITH DISOMER®

DIAGNOSIS	NO. OF PATIENTS	RESULTS				SIDE EFFECTS
		EXCELLENT	GOOD	FAIR	NO RELIEF	
Atopic Dermatitis	37	20	12	1	4	1
Contact Dermatitis	15	8	6	1		
Neurodermatitis	11	8	3			1
Winter Eczema	3	2	1			
Nummular Eczema	4	1	3			
Infectious Eczematoid Dermatitis	1				1	
Eczematoid Dermatitis	11	6	3		2	
Papula Urticaria	6	5	1			
Urticaria	5	3	2			
Drug Eruptions	4	2	2			
Miscellaneous	10	5	2	1	2	1
Totals	107	60	35	3	9	3
		88%				

drug. The parents of the children who received the syrup were instructed to administer either one-half or one teaspoonful three times daily. The patients who received the tablets were instructed to take one tablet four times a day.

Following the start of treatment, all patients were seen at weekly intervals, when the appearance of the lesions and the degree and kind of subjective symptoms were noted. In thirty-one patients, it was necessary to increase the dose to two tablets four times daily. The total duration of treatment varied from one to six weeks. Table 3 summarizes the case distribution by length of treatment.

Results

The therapeutic results with Disomer were appraised on the basis of improvement in skin lesions and relief of associated pruritus. Thus, the criteria of efficacy were both objective and subjective. Evaluated in terms of both criteria, the results are summarized in Table 4.

It can be seen that only nine patients failed to respond to the medication. Two of these failures were cases of severe eczematoid dermatitis that had not responded to any previous

therapy. Another case of lichen planus continued to have marked pruritus despite an increase in antihistamine dosage and concomitant x-ray therapy. Ninety-five of the total group (eighty-eight percent) had good to excellent results.

Noteworthy was the very low incidence of side effects. Only three patients (about three percent) complained of drowsiness but in none of these was the drowsiness severe enough to require cessation of therapy. No untoward effects, other than these three complaints of drowsiness, were noted.

Comment

The high therapeutic index and relative potency of dexbrompheniramine (Disomer®), observed in animal studies, are reflected in the results of clinical investigation. As the active isomeric fraction of a potent racemic antihistamine, the drug seems as close to a pharmacologically pure form of histamine-antagonist as the chemist can produce. The lack of clinically significant side effects with Disomer, even in dosages two to four times greater than the usual therapeutic requirement, is an impressive feature of the drug's action.

Summary

(1) *The clinical pharmacology and therapeutic use of dexbrompheniramine, (Disomer®), the isomerically active fraction of a potent racemic antihistamine, have been studied in normal adult subjects and in patients with dermatologic disorders.*

(2) *Administered to normal subjects in single oral doses of 2 mgms. and 4 mgms., dexbrompheniramine caused a definite suppression of the flare reaction to intradermally injected histamine. The flare suppression was evident within one hour, and maximal within three to four hours, after ingestion of the drug.*

(3) *The drug was given orally to six healthy volunteers in daily doses which were increased at weekly intervals up to a level of 32 mgms. a day. The latter dose level of the drug was continued for a period of two weeks. There*

were no complaints of side effects and no clinical evidence of untoward reactions during or at the end of the experiment.

(4) *In therapeutic trials among one hundred and seven patients with various dermatoses, dexbrompheniramine gave good to excellent results, evaluated in terms of both objective and subjective improvement, in eighty-eight percent of the total group. Three patients (three percent of the total) reported the occurrence of mild drowsiness while taking the drug. No other side effects were noted.*

(5) *On the basis of these observations, dexbrompheniramine seems to offer a significant advantage as a histamine-antagonist. The drug is effective in very low dosage and appears to have little propensity for causing untoward clinical effects.*

References

1. Halpern, B. N.: Les Antihistaminiques de Synthèse. Essais de Chimiothérapie des Etats Allergiques. Arch. Internat. Pharmacodynamie 68:339-408, 1942.
2. Tislow, R., Labelle, A., Mckowsky, A. J., Reed, M. A. G., Cunningham, M. D., Emele, J. F., Grandage, A., and Roggenhoffer, R. J. M.: Pharmacological Evaluation of Trimeton, 1-phenyl-1-(2-pyridyl)-3-N, N-dimethylpropylamine, and Chlor-Trimeton, 1-(p-chlorophenyl)-1-(2-pyridyl)-3-N, N-dimethylpropylamine. Federation Proc. 8:338, 1949.
3. Kreindler, L. Ghory, J. E., Bernstein, I. L.: Treatment of Allergic Disorders with a New Antihistamine: Parabromdylamine. Antibiotic Medicine and Clinical Therapy 6:28-31, 1959.
4. Roth, F. E. and Winbury, M. M.: Personal Communication.
5. Bain, W. A., Hellier, F. F. and Warin, R. P.: Some Aspects of the Action of Histamine Antagonists. Lancet 2:964, 1948.

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TOBACCO HYPOGLYCEMIA

"1. The incidence of hypoglycemia associated with the use of tobacco is about 2% of patients in our practice.

2. The condition occurs in individuals who apparently are peculiarly sensitive to some substance found in tobacco smoke, the most likely being nicotine.

3. Although the great majority of patients with functional hypoglycemia are women, 22 out of 24 cases of tobacco hypoglycemia reported here occurred in men.

4. Tobacco hypoglycemia is a clinical entity which should be considered in the differential diagnosis of patients with evidence suggestive of either islet cell hypoglycemia or so-called functional hypoglycemia."

MAXWELL G. BERRY

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Allergy in General Practice

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Although allergic sensitization generally is thought to be a disease of modern times, this condition was present and recognized long, long ago, even prior to the Christian era. Ancient literature contains many references to certain abnormal conditions which today are recognized as definite allergic reactions. In the first century, B.C., the Roman poet, Lucretius, recognized food allergy, as indicated by his often quoted and very true statement that, "One man's meat is another man's poison," and in 100-200 A.D., the Babylonian Talmud gave explicit directions for treating sensitization to egg by feeding egg white to the patient. Also in the Middle Ages, attacks of asthma and paroxysmal sneezing were known to be caused at times by flowers, trees and other plants and by the eating of certain foods.

The term "allergy" has come to be a common household word. It is used frequently and loosely by many persons to denote disagreeable or unpleasant experiences following contact with individuals or conditions to which they say they are allergic. Such expressions as "allergic to my wife," "allergic to work," etc., are quite popular but, of course, not very scientific.

Causes and Incidence

The word "allergy" is derived from the Greek and in that language means "other energy." The simplest definition of allergic

reaction that I know of is the one given by Dr. Jonathan Forman, that "an allergic reaction is an abnormal response by an individual to an ordinarily harmless substance." The harmless substance referred to usually is a protein which is, or was at some time, derived from a living animal or plant. Examples are proteins from foods, from bacteria, from animal danders, as in cat or horse hair, from molds and fungus growths, etc. There is another class of substances which may cause reactions on the skin from direct contact with such things as drugs, industrial agents, cosmetics, and many other irritants. Any of these things can cause trouble for an individual if he is sensitized or, as we say, allergic to them.

Various investigators estimate that ten to twenty percent of the entire population have definite allergic disease of some type and that three to ten percent have respiratory allergies. An interesting sidelight on these statistics is the observation of Dr. Coca that among the insane less than 0.1% have allergic disease, and in seven thousand psychiatric patients Mac-Inniss (reported by Urbach) found that only 0.07% showed allergic symptoms. Also in this group, three patients with allergic disease improved or were entirely relieved of allergic symptoms during their mental illness, but upon improvement of the mental conditions, suffered recurrence of their allergies. Those of us who are afflicted with allergic complaints should find some comfort in these observations.

The greatest incidence of allergic disease occurs in the various ramifications of the respiratory tract. Allergic sensitization also frequently is the cause of eczema and other dermatological conditions and of many gastrointestinal complaints. Many authorities agree that allergic disease may affect every organ and tissue in the body and offer much convincing evidence to support this claim. Allergic disease may begin at birth. The colicky baby with projectile vomiting and eczematous rash probably is sensitized to some food in his diet, such as milk or orange juice. The child may recover from this early manifestation but is very apt to suffer later in life with various other allergic conditions such as hay fever, asthma, dermatitis, gastrointestinal upsets, headache, allergic sinusitis and a host of other complaints and symptoms known to be caused frequently by allergic sensitization.

Drug Allergy

All doctors prescribe drugs freely and it might be well to consider the subject of drug allergy for a few minutes. Although it has been known for a long time that some patients developed toxic and untoward reactions from various drugs, it has been only in fairly recent years that many of these reactions have been recognized as true allergic manifestations. Not only is the recognition of drug allergy becoming more common but sensitization to drugs seems actually to be on the increase, especially since the advent and free use of so many new drugs such as the sulfonamides and antibiotics. Attention has been called to severe allergic reactions to thiouracil, hormones, anti-epileptic drugs, vitamins and even to antihistamines. Some of the older drugs now known to cause allergic reaction, such as aminopyrine and arsphenamine have largely been discarded, but many offending drugs of this type are still in common use. Among these may be mentioned especially such well-known and widely used drugs as arsenic, atabrine, barbiturates, bromides, iodides, benzocaine, nupercaine, butin, insulin, liver extract, quinine, mercury, phenolphthalein, codeine, etc. Severe anaphylactic

shock and even death have been reported from relatively small doses of the universal household remedy, aspirin.

Sensitization to drugs may cause all of the common allergic symptoms: rhinitis, asthma, urticaria, contact dermatitis and anaphylactic shock. Allergic reactions produced by drugs administered orally are very similar to the reactions produced by ingested foods. Drug allergy also may produce reactions which only rarely occur in food or inhalant allergy, such as fever, skin rash, arthralgia, hepatitis, agranulocytosis, etc. Drugs, again like foods, are changed by stomach acidity, digestive enzymes and the intestinal flora. Most of the drugs causing allergic reaction are synthetic non-protein compounds and probably act as sensitizing agents only after chemical combinations with proteins of the body. In this way complex drug compounds undergo very extensive changes and the final product or antigen may bear no resemblance at all to the original drug, and may be an entirely different substance. This explains why skin tests with raw non-protein drugs are unsatisfactory and of little value. Drugs which primarily are proteins, of course could be expected to, and sometimes do, give positive skin tests in sensitized individuals.

Drugs of both types, protein and non-protein, or crystalloids, may cause the same sort of anaphylactic shock as will other antigens to which an individual may be sensitized, such as foods, inhalants, serum, etc. Such commonly used medicaments as insulin, vaccines prepared from egg yolk, liver extract, and many others, have at times caused severe anaphylaxis with dyspnea, cyanosis, urticaria and collapse.

It is advisable to proceed with caution in the administration of a new or untried drug to any patient who gives a positive history of other drug sensitizations or in the presence of a personal or family history of other allergic manifestations.

If, for any reason, a drug comes under suspicion the best procedure is to forget about it and to use an unrelated substitute of a different class.

Diagnosis

Although the practice of allergy is rapidly becoming a highly specialized field, the general practitioner can and should handle many of these cases himself. There are a number of practical and fairly simple diagnostic measures which any physician may readily utilize in his examination of the patient if an allergic condition is suspected. The most important single feature of the examination is a thorough history. This should begin with the patient's family, for in sixty to seventy percent of all allergic patients there will be a positive history of allergic complaints in their close relatives. If the patient has this type of hereditary background the presence of allergic disease should be strongly suspected until it can be ruled out. The patient's personal history also is extremely important. In some instances the case can be solved by a good history alone.

An increase in the eosinophiles in the blood stream or in the nasal secretions is strongly indicative of allergy. In seeking the cause of chronic rhinitis or sinus disease a differential diagnosis between allergy and infection can be made by examination of a stained smear of the nasal discharge. A preponderance of eosinophiles denotes allergy while a preponderance of neutrophils means infection. Successful treatment depends entirely upon this etiologic differentiation.

Many cases of dermatitis and many gastrointestinal complaints are due to food allergy. Careful quizzing of the patient in regard to his dietary habits will often bring a certain food under suspicion and elimination of this food from the diet may relieve all of the symptoms.

A number of other conditions may produce symptoms which closely simulate allergic disease and which must be considered in the differential diagnosis. Hypothyroidism may produce the stuffy nose, the dull headache, the general lassitude, the pale nasal mucous membrane and other symptoms of allergic disease. It is remarkable how quickly medication with thyroid substance will relieve symptoms which often are thought to be due to

allergy. The pallid grayish appearance of the nasal mucous membranes so typical of allergic disease of the upper respiratory tract may be due to secondary anemia or to malnutrition. Urticarial and eczematous eruptions and other symptoms usually due to allergy may be caused, also, by emotional stress and psychogenic factors. In short, anything which will upset the autonomic nervous system may cause symptoms which simulate true allergic reactions.

Treatment

The best treatment for any type of allergic disease is, of course, complete removal of the offending allergen from contact with the patient. The hay fever victim has no trouble in sections of the country in which the pollen to which he is sensitized does not grow. The person sensitized to animal danders will be relieved of his symptoms as long as he is not in close contact with the cat, dog, horse or other animal producing the specific dander to which he is allergic. Contact dermatitis caused by cosmetics, industrial agents, poison ivy, etc., will cease to irritate the sensitized individual upon removal of contact with these substances. The food sensitive patient will remain symptom free if the offending food is removed from his diet. Most allergic problems are not this simple, of course, but quite often the family doctor can make the diagnosis by means of a careful deductive history and can then give his patient proper and effective advice.

The general practitioner may be called upon at any time to render emergency treatment to an allergic person suffering from anaphylactic shock. This is an extremely serious and dangerous situation, as you well know, and heroic measures must be taken at once. Anaphylactic reaction may be the immediate result of insect stings or of the injection of antigens, antibiotics and other drugs and serums or of other agents to which the patient may be hypersensitized. The victim of anaphylaxis may be seized immediately with any one or all of a severe chain of reactions, such as giant hives, edema of the larynx and bronchi, severe asthma, inability to breathe,

cyanosis, convulsions, shock and general collapse. The great lifesaver in this emergency is, of course, epinephrine in the strength of 1-1000. 0.1 c.c. should be injected directly into the wheal or site of the sting or of the prior injection. The needle is then pushed through the wheal into the subcutaneous tissue and 0.4 c.c. more injected there. If the patient's response is not quick and adequate, more epinephrine should be injected. Other drugs of value, to be used intravenously, are aminophylline, antihistamine and hydrocortisone.

At times a tracheotomy may be required. In such emergency one does not wait for the arrival of a throat surgeon nor waste valuable minutes searching for a misplaced tracheotomy set but makes the incision and the tracheal opening with the instrument immediately at hand. It has been done with a pocket knife.

Proper Use of Epinephrine

I would like to add a further word concerning the use of epinephrine, or adrenalin. Although this is a very valuable drug, it also is a very powerful one, and it has been my observation that frequently it is used to excess and injudiciously. We should not hesitate to use adrenalin in full dosage, if necessary, but usually, and except in extreme cases, a dose of from 0.2 c.c. to 0.4 c.c. will bring about the desired results.

Some time ago one of my patients suffered a severe attack of asthma. She was unable to contact me and called a doctor nearby who gave her a subcutaneous injection of adrenalin. The asthma promptly disappeared but other alarming symptoms developed. The doctor called my office and told my nurse that the patient was in great distress, that her heart was beating like a triphammer, that she had severe head pain and that she was very pale, shaky and agitated, almost to the point of convulsion. He asked the nurse what we had done for this patient in prior asthmatic attacks and when she told him that 0.2 c.c. of adrena-

lin had always controlled the attacks, even severe ones, he groaned and said: "My God, I gave her a full c.c. If she dies they will find two corpses here instead of one!"

Another illustrative case is that of a small boy, six years of age, who was rushed to my office recently. He was gasping for breath and suffering from a very acute and alarming attack of asthma. The nurse told me later that she was afraid he was going to die. She gave him 0.05 c.c. of adrenalin and when I arrived a few minutes later he had recovered and was quite comfortable. The same dose was repeated, for good measure, before the boy started home although this extra dose probably was unnecessary. Adrenalin is a very useful drug, as we all know, but let's not overdue a good thing.

Usually the allergic individual first consults his own family doctor for relief of his symptoms. The general practitioner should be sufficiently "allergy-conscious" to at least suspect and consider the possibility of the presence of allergic disease when these patients come to his office. He can manage a number of these cases himself but if he is not prepared to carry out the minute details of diagnosis and treatment required in many instances, then he should refer the patient to a specialist in this field. If the patient lives so far away that frequent trips are burdensome, the allergist, after his initial examination is completed, very probably will ask the referring doctor to assume the management of the case and to administer such active treatment as may be prescribed, with only occasional visits back to the allergist for a recheck and such re-vamping of the situation as may be advisable. In my own experience, this arrangement has proved quite satisfactory. Through such co-operation the patient's needs may be satisfied, the allergist will be grateful and the family doctor may continue to look after his own patients' interests, which is, of course, as it should be.

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Routine Angiographic Investigation of Patients with *STROKE*

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During the past few years an unobtrusive but startling revolution has taken place in the field of cerebrovascular disease. An impressive array of new clinical and physiologic information has been made available within a short space of time. As a consequence, certain basic time-honored concepts of mechanisms responsible for strokes have begun to crumble. The impact of these new research data continues its erosion of older established clinical beliefs to date. In at least one instance, an entire clinical diagnostic entity has undergone drastic revision. Arterial lesions previously considered insignificant have emerged from obscurity to a position of unique prominence. The importance of the role played by extracranial obstruction to cerebral blood flow has been clarified in a number of clinics. These changes, both in physiologic content and shifting stress, have provoked fundamental revisions in medical management of the stroke patient.

For the first time, it is feasible today to determine with a high degree of accuracy the cause of the common ordinary stroke.¹ Happily, this information can be put to prompt use in successful specific surgical or medical

treatment for many stroke victims. Methods of therapy have, by and large, kept pace with revised notions of etiology. It must be emphasized that a focal, objective delineation of the cause of each stroke is the bedrock upon which rests this "new look" at the hemiplegic. Modern management of every patient with stroke rests, of necessity, upon success or failure in the search for a precise anatomic diagnosis.

A few observations will serve to stress the rapidity of evolution of medical thought regarding the general problem of strokes. As recently as a few years ago, the type of stroke and its precipitating cause were of no particular concern to the family physician. If he was unable to offer the patient definitive treatment of his illness, of what use was detailed knowledge of the lesion producing it? This gloomy picture has changed markedly for the better. A number of special technical advances have fused with a series of brilliant physiologic researches to bring about a striking metamorphosis. Probably major impetus was produced in the field by two seemingly unrelated events—the advent of cerebral angiography and the anatomical researches conducted by M. Fisher on cervical arteries.

Cerebral angiography, first utilized by Moniz in 1927, passed through a number of refine-

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ments during succeeding decades. It remains the only known method for direct, roentgenographic visualization of the arteries and veins essential to the circulation of the brain. Abnormal distribution, altered patterns of branching, and unusual position of the cerebral circulatory tree can be compared with the normal. In addition, fairly accurate estimates of speed of blood flow can be formulated. The vascular supply of tumors, the site of aneurysmal dilations, and the presence of arterial malformations are well delineated. That is not all. The method will show clearly partial or complete obstructions of artery channels due to atheromatous deposits or to emboli. What, then, has held up widespread application of this obviously valuable technique for the vast majority of patients manifesting cerebral symptoms? Why cannot this technique be used to help establish an accurate diagnosis in every patient with stroke? Answers to both questions lie in the following considerations:

During the early days of angiography, attempts to opacify the cerebral circulation occasionally met with disastrous results. Serious complications such as hemiplegia occurred all too frequently and even deaths were reported.² Under these circumstances, cerebral angiography was naturally reserved for those patients in critical straits in whom injection was felt to constitute less of a hazard than their illness. During subsequent years the introduction of less toxic media combined with revisions in angiography technique brought about dramatic decrease in mortality and morbidity. Complications attending cerebral angiography become more and more infrequent. Today, cerebral angiography is not only an extremely valuable diagnostic tool but a safe one.³ Modern dye substances have been used without appreciable morbidity in many thousands of cases during the past several years.⁴ In contrast to the dubious earlier status of this technique, the present risk of cerebral angiography is not at all commensurate with the frequently grave risk to the patient of his undiagnosed—and therefore untreated—cerebral illness. The hesitancy still shown by many clini-

cians in making full use of cerebral angiography is understandable in view of past experiences, but this reticence is no longer supported by scientific fact. Many competent investigators are now convinced that progress in diagnosis and treatment of patients with cerebrovascular disease is not only influenced by, but is in large part *dependent* upon, the prompt use of adequate cerebral angiographic studies. Modern investigation of each patient diagnosed as having had a stroke should include as an integral aid the performance of cerebral angiographic studies.

Among the types of arteriosclerosis, the lesion known as segmental atherosclerosis has been under intensive investigation in recent years. Sites of predilection for these lesions have been found to be the mouth of the left coronary artery and the aortic bifurcation. The effect is the same whatever the location of the diseased segment. Subintimal lipid deposits enlarge by a process of gradual accretion and progressively obstruct the luminal blood flow. In order to identify and study these areas of obstruction, peripheral arteriography began to be increasingly applied during life. The method could be used without hazard to the patient and yielded valuable information. Routine application of this investigative technique became commonplace. As the lesions of segmental arteriosclerosis became better understood, operative procedures were undertaken to restore flow through diseased segments. Corrective arterial surgery has therefore become a subspecialty of the general surgeon in some clinics during the past few years. Technical problems in this field have been solved with remarkable rapidity. Shelling out of the lesion with resuture of the vessel wall or by-pass of the diseased segment using a plastic prosthesis are two methods most frequently used to restore blood flow.

Because cerebral angiography could not at that time be performed with the same impunity that attended roentgenographic study of peripheral vessels, investigators were slow to recognize that one of the most common sites for segmental arterial disease was in the cervical

carotid artery. Studies of Fisher⁵ already mentioned, and increasing safety and widespread use of cerebral angiography have since thoroughly established the association of cervical carotid occlusion with development of a variety of ischemic brain syndromes. It is now realized that with the exception of the abdominal aorta, the highest incidence of segmental disease is found in the cervical carotid artery. Angiography began to find specific application in the investigation of cerebrovascular disorders. A number of years ago Johnson and Walker reported a series of patients with repeated strokes and mounting neurologic sequelae—exhibiting therefore the temporal profile of a patient with brain tumor—who were discovered through angiography to have occlusive disease in one or both cervical carotid arteries.

Coincident with this study and other early reports, several papers of fundamental significance were published by Fisher.⁶ His work established unequivocally the relationship between cerebral circulatory insufficiency and infarct, and the extra-cranial occurrence of cervical segmental arterial disease. These careful researches pointed out for the first time that correct diagnosis in many unselected autopsied cases of cerebrovascular disease could only be made by study of the cervical carotid vessels. One of the major mysteries of modern neurology was thus cleared up. For it has been well known to pathologists that even after careful postmortem search, as many as sixty percent of patients dying as a result of cerebral infarcts *show no obstruction of the cerebral artery supplying the region*. The studies of Fisher disclosed the reason why. These patients with ischemic brain damage, diagnosed in the past as having cerebral thrombosis, have in reality been the victims of stroke due principally to progressive arterial occlusive disease in the neck.

The significance of this observation began to slowly make itself apparent. Technique of angiography was altered in many clinics so that arterial structures could be studied in the neck as well as in the head. A number of

methods were devised to disclose individual parts of the arterial tree supporting the brain. The true incidence of carotid bifurcation lesions is still unknown, but it must be extremely high. Gurdjian and his co-workers⁷ found cervical occlusive disease in twenty-five percent of one hundred hemiplegics, and Murphey⁸ recently reported an incidence of twenty-four percent in patients with cerebrovascular accidents. It would appear that at conservative estimate, perhaps one quarter of those developing hemiplegia do so because of serious arterial occlusive disease in their neck vessels. This percentage does not take into account, those persons afflicted with more sophisticated neurologic syndromes, which may be, at least in part, ascribable to cervical occlusive disease. Today, Murphey terms carotid insufficiency one of the most important problems that neurosurgeons have ever faced.

In the neck, carotid obstructions begin at or near the bifurcation, and characteristically include the division of the artery and the origin and proximal one inch of the internal carotid trunk. The external carotid branch is usually spared, for reasons as yet unknown. Occasionally the trunk of the common carotid may be seriously diseased. The lesion makes its first appearance as a flat subintimal plaque at the carotid bifurcation. As it spreads to adjacent walls of the vessel it slowly thickens. This process of accretion produces eventually a firm, yellowish kernel protruding for varying distances into the lumen. Necrosis and ulceration of the plaque are not uncommon, and hemorrhage into it may cause sudden occlusion. The plaque itself may slowly obliterate the lumen, and final closure of the latter is succeeded by adjacent intraarterial thrombosis. It has been observed that if segmental arterial disease is present in the neck, the intracranial vessels usually show little arteriosclerosis.

It has been known for years that obstructions of considerable magnitude may be present in cervical carotid arteries without causing symptoms of any kind. A long list of individuals in the past have required ligation of one carotid, and have developed no sequelae

to surgical interruption. It must be borne in mind that in these individuals, as in the rest of us, *the metabolic state of the brain depends upon the entire cervical-cerebral arterial tree.* Under certain circumstances even advanced cerebral artery disease will remain asymptomatic so long as flow volumes through both carotids remain high. On the other hand, complete obstruction of the right and left internal carotid arteries might not be productive of symptoms in the presence of normal vertebral and basilar arteries, a structurally adequate circle of Willis, and healthy cerebral arteries. Between these extremes lie an immense number of variations between individuals in morphology and physiology. Maintenance of normal cerebral blood supply in many instances of cerebrovascular disease serves as a striking indication of the resiliency of the cerebral circulatory system. Such cases are excellent proofs of a normally great capacity of the cerebral arterial system to absorb considerable restriction of flow volumes before evidencing signs of serious impairment in oxygenation. This high tolerance to physiologic insult in no way contradicts the premise that it is well to have a healthy reserve of cerebral arterial inflow over and above minimums below which symptoms of oxygen lack will develop.

Considered in the light of nutrient demands, the brain is therefore a singular organ. It does not usually signal increasing oxygen want, nor does it falter when oxygen reserves are precariously low. Under ordinary circumstances it receives an overabundance of oxygen through four major arterial channels. That insidious decrease in oxygen supply is frequently asymptomatic is proved by the multiple cerebral lesions of long standing present in many individuals when their first symptom occurs. It is also true that an occasional patient may develop clinically valuable "warning signs." Unfortunately, at that stage a number of large and crucial brain areas may have already reached a state of dangerously borderline oxygen supply or actual cerebral infarcts may be present. The lack of clinical sign that cerebral oxygen reserves are dangerously low

seems to be responsible for the abrupt clinical appearance of hemiplegia or major central nervous system dysfunction as a consequence of relatively minor systemic physiologic changes.

A middle-aged male who has developed over the years bilateral carotid bifurcation occlusions, and is functioning in apparent normal health but with only a fraction of his normal cerebral arterial inflow, experiences an entirely physiologic decrease in arterial pressure during sleep. Cerebral areas irrigated by a barely adequate pressure head through the collateral network are suddenly deprived of much of their meager blood flow. The "stroke" present on awakening seems to have developed with startlingly "spontaneous" abruptness. Inevitably, further such strokes will occur unless the underlying cause for cerebral ischemia is corrected. As systolic pressure rises, perhaps concomitantly with resumption of physical activity, signs and symptoms vanish with the increasing cerebral oxygenation. The stroke disappears just as inexplicably as it appeared. Some such mechanism may well be responsible for the relatively common occurrences of ischemic strokes after retiring, or during sleep and prior to arising and their disappearance as the patient gets up and around. It affords a reasonable explanation for those cases noted to show a stuttering progression of attacks, each leaving a slightly greater residuum of permanent neurologic damage. A clinical history marked by such intermittency begs for investigation. It is only too seldom that warning signs of impending cerebral catastrophe allow a period of grace during which definite therapy can be instituted.

It has been pointed out by the author in a previous paper that the word "stroke" is a dangerous misnomer.⁹ The term is customarily applied to a patient with sudden cerebral dysfunction, accompanied by hemiplegia. The word is of no value insofar as accurate diagnosis is concerned. It means only that a relatively abrupt interference with brain function has occurred. Recent studies have proved that there are frequent large discrepancies between clinical and anatomic diagnoses of patients

with stroke and that a variety of vascular lesions have the capacity to produce clinically similar states of cerebral dysfunction.¹⁰

Reliance upon the temporal profile of neurologic illness for diagnosis suffers from the serious drawback that such a diagnosis cannot be other than a statistical estimate until substantiated—or repudiated—by demonstration of the lesion actually present in the patient. It is the conviction of the author that only through cerebral angiography can a common garden variety stroke due to cervical stenosis occlusion be accurately and unequivocally differentiated from one due to cerebral artery stenosis or insufficiency.

There has been a continued evolution of thought in regard to clinical criteria upon which a diagnosis of cervical carotid disease might be based. An early attempt was made to segregate patients into three general groups distinguished by rapidity of development of the ictus, age, and neurologic findings. These clinical groupings included practically all contingencies of variability in the stroke picture, and proved to be of little use for purposes of precise diagnosis. The studies served admirably to illustrate the multiplicity of guises under which this disease could masquerade. Nevertheless, a number of symptoms and signs have been reported to be associated with cervical carotid occlusive disease.

Monocular blindness, and unilateral optic atrophy are sometimes manifested by patients with carotid arteriosclerotic lesions.¹¹ As reports of series of patients accumulate, it would appear that these optic disturbances are relatively rare sequelae to carotid occlusion, although the presence of such signs is of value in suggesting diagnostic possibilities. It is doubtful if these particular syndromes occur in the absence of retinal artery disease. Direct palpation of the carotid artery in the neck, or of the pharyngeal artery in the throat, are maneuvers which are notoriously susceptible to misinterpretation, in the first instance because of pulsation transmitted from the thoracic great vessels, and in the second because the external carotid may be mistaken for the internal.

Under the unusual circumstances that it can be verified that *no* pulsations are present on one side of the neck, a diagnosis of carotid occlusion is justified on clinical grounds alone. Gurdjian has employed a clinical test which seems to possess validity in determining the functional state of the cerebral circulatory tree. Careful compression tests are made of each carotid artery. In a high percentage of cases, compression of the undiseased artery—which is largely responsible for cerebral arterial flow—results in syncope or convulsion after about thirty seconds.

Theoretically, ophthalmodynamometry should be of considerable assistance in arriving at a diagnosis. Retinal artery pressures, however, have not been found to be a reliable guide indicating ipsilateral carotid occlusion in the neck. This is perhaps not too unexpected a finding, particularly if in that patient a free arterial flow is present from the opposite internal carotid artery to both undiseased retinal arteries. Under such circumstances, even with complete block of one internal carotid artery, no retinal artery pressure differential may be manifested. In support of this assumption Sweet¹² has recently reported large discrepancies between the decreased arterial pressures immediately distal to a ligated internal carotid artery and the much higher pressures measured in the ipsilateral eye. It would therefore appear that ophthalmodynamometry although occasionally of assistance, may be a somewhat ambiguous and unreliable aid in diagnosis of carotid disease in the neck.

Both a local and a cranial bruit have been described to accompany cervical carotid occlusion. The cervical murmur is heard best over the bifurcation, and the cranial over the ipsilateral eyeball.¹³ These auscultatory findings constitute another aid in diagnosis, and might well lead one to suspect an arterial lesion in the neck in a patient presenting an otherwise puzzling clinical picture. Unfortunately, all degrees of partial carotid occlusion up to complete obstruction may be present and a bruit never make an appearance. This sign, therefore, should be the object of diligent search,

but no assumptions based on its absence made in regard to arterial disease.

Among the most impalpable and all-defined neurologic effects that may be produced by carotid occlusion are those in the mental sphere. Fisher⁶ and others¹⁴ have reported the striking association between bilateral carotid occlusion and the psychiatric picture of senile dementia. Gurdjian and Webster have stressed the personality changes exhibited by patients with occlusive arterial lesions. Murphey⁸ suggests that psychiatric evaluation of middle-aged and elderly patients should, in the future, include evaluation of the carotid circulation. It would appear to this author that enough evidence is at hand to clearly indicate the necessity of complete cervical-cerebral angiography in all those past the third decade who show progressive mental deterioration, particularly prior to a firm decision in regard to commitment for long-range care.

There are other factors which make almost an impossibility a clinical diagnosis of the precise anatomic lesions responsible for stroke. These are the highly important variations between people in development of the circle of Willis itself.

Differences between individuals in the morphology of this intracranial arterial complex are exceedingly common. It is not realistic to expect these structural variations to be available to the techniques of inspection, auscultation and palpation. Anatomic studies have established that it is the unusual or the uncommon circle of Willis that conforms to the textbook morphological pattern, and that developmental deviations in this octagonal system are the rule rather than the exception. String-like posterior communicating arteries are frequent findings at autopsy, and there may be complete absence of an arterial branch. There is no doubt that development—upon such a background—of degenerative arterial lesions in later life may lead to an initial failure at this congenital "weak link" in the cerebral structural flow pattern. Crucial factors therefore include not only the degree of patency of the entire cervical and cerebral arterial complex,

but its vascular developmental structural pattern. It is highly likely that special susceptibility to brain stroke may be determined in some individuals in the early hours of embryonic life, when vascular anlage of the brain have made their primary intricate fusion processes. Only cerebral arteriography is capable of showing structural deviations of this type.

With these considerations in mind, it can be seen that alteration in flow volume through a single important arterial channel may disrupt brain function at a considerable distance. Distant effects from proximal arterial occlusion would seem to be the rule rather than the exception. In the face of partial occlusion of one cervical carotid, what might be the effect of progressive obstruction of the basilar artery? The answer will rest entirely upon the morphologic pattern and physiologic state of the remaining cerebral arterial complex. If brain-stem areas already exist in an environment of borderline oxygen supply, they will fail in catastrophic fashion with an ordinarily insignificant drop in systolic pressure head. If these two lesions are the only abnormalities in an otherwise adequate cerebral circulation, it is possible that the patient will remain asymptomatic.

It can therefore be seen that carotid occlusion in the neck is capable of producing a myriad of signs and symptoms depending upon the location and extent of areas of borderline oxygenation in the central nervous system. Gradually worsening obstruction in one carotid bifurcation is, in this sense, the final insult reducing blood flow in particular brain areas to sub-threshold levels.

Surgery for relief of cervical carotid obstructive disease, or for repair of lesions located in more proximal vessels, obviously cannot be considered in any way curative of cerebrovascular disease. The surgical aim is to tip the scale in the direction of increased cerebral flow volumes and thereby improve oxygenation. It is likely that greatest benefit will accrue to those cerebral fields irrigated by collateral arterial flow which, at the moment, is below threshold for sustaining cerebral function. The

existence of functionless but still-living cerebral tissue in such collateral zones has been well demonstrated in animal research.¹⁵ Under experimental conditions, restoration of a normal arterial pressure-head to large vessels far removed from the cerebral area under consideration results shortly thereafter in improved circulation of collateral fields and simultaneous return of the abolished neurologic function. There is no reason to believe that human cerebral physiology is markedly different from the monkey in these respects.

Decision for or against surgical treatment for cerebral artery occlusive disease must be considered against this scientific background. There is no disputing the claim that this particular method of attacking segmental arterial disease will not be the ultimate answer—for it is apparent that prevention, or chemical obliteration, of these lipoid-vascular lesions would be infinitely preferable. Unfortunately, these means are as yet beyond us. The era of surgical reconstruction for occlusive arterial disease represents an enormous improvement however, over former meager methods for dealing with cerebrovascular disease, and should serve well as interim therapy of considerable importance.

Surgical reconstruction of blocked neck arteries has been successfully performed in a large number of patients to date. Sometimes dramatic and sustained cures of repetitive hemiplegia may be the reward for prompt angiography and surgery.⁹ The series reported by Rob¹⁶ and by Murphey⁸ stress the importance of early operation in speeding recovery.

Objections have been raised in regard to several aspects of surgical therapy for cerebral insufficiency. Several cases have been published to illustrate the difficulty in correlating persevering relief of arterial obstruction with neurologic signs shown by the patient in the postoperative period. This stems from the clinical observation that improvement of neurologic signs may occur even when postoperative angiography reveals complete thrombosis within the repaired carotid artery. In these patients it is obvious that clinical improvement would there-

fore have occurred in the absence of surgical intervention. Even though this may introduce a proper reticence on the part of the surgeon to claim that improvement after endarterectomy is always a direct result of the surgery, it does not alter the premise that re-establishing a more normal cerebral arterial flow is a very desirable end. Since entirely comparable vascular structures such as the aorta, iliac arteries, and even small arteries like the femorals are not only successfully repaired surgically but retain excellent lumina for years, the few reported difficulties in maintaining cervical carotid patency represent no more than a transient technical impasse in this particular anatomic region. Stresses produced by the normal mobility of neck structures may be partially responsible for these isolated cases. If this factor proves to be an important one in surgical failures, insertion of a plastic prosthesis might be found to provide more durable results than endarterectomy.

If multiple arterial occlusions are demonstrated within the neck and cranium, justification for operative intervention may be debatable. In the presence of partial or of complete obstruction of the common or internal carotid arteries, exploration would seem to be mandatory. Subsequent success or failure of surgical therapy in patients with complete bifurcation obstruction depends entirely upon the presence or absence of a functional lumen in the distal segment of internal carotid artery. In any event, it is common practice to ligate and transact all carotids found to be surgically irreclaimable, under the premise that if these necrotic specimens are left *in situ*, perhaps an occasional embolus or thrombus may later advance toward the circle of Willis. When repair of the artery seems feasible, my experience has been similar to that of Murphey who utilizes thromboendarterectomy.

A new method of performing cerebral angiography without inflicting trauma on already diseased arteries of the cerebral tree has recently been presented by the author.¹⁷ Blind needling and inadvertent transfixion of neck or thorax arteries is avoided, and with one

injection, consistently good serial opacification is obtained of two-thirds of the neck-to-brain circulation. This technique is advocated as potentially far less injurious to the patient, and more reliable for routine purposes than the percutaneous methods in general use. In addition, since positioning of head and neck structures can be carried out in comfort and without fear of dislodging a needle, it is the rule to obtain serial films of excellent technical quality. Ideally, each patient who develops stroke should have the cerebral circulatory tree visualized from thorax to brain. Evaluation of these films will then influence decisions in regard to surgical or medical therapy.

The successful treatment of occlusive vascular disease by anticoagulants is not a new development. A number of series of patients with clinically diagnosed cerebrovascular occlusions (or "insufficiency") treated by anticoagulants have been reported.^{18, 19, 20} These papers uniformly fail to mention the utilization of cerebral angiography in establishing a diagnosis—despite the proved difficulty in arriving at a focal anatomic diagnosis by clinical means. The precise location of a vascular lesion or lesions in these patients is therefore unknown. This may account for the varying success reported with such therapy. In the face of unsuspected chronic arterial obstruction present primarily in neck vessels, for example, it is unlikely that prolongation of blood coagulation time will produce much effect. On the other hand, distinct benefit seems to derive from the administration of anticoagulants when symptoms are primarily due to small arterial occlusions in the brain. Dramatic resolution in symptoms has been noted particularly in patients with signs and symptoms of brain stem "insufficiency." It is probable that the majority of these patients actually do possess arterio-

sclerotic lesions in small end arteries derived from the basilar artery and its branches. In the experience of the author some of the most satisfactory neurologic recoveries have occurred in patients with anatomically diagnosed basilar artery insufficiency who have been placed promptly on a dicumarol preparation. It therefore becomes of considerable importance to be able to state with certainty whether occlusive arterial disease is responsible for a "stroke," and if so whether the precipitating lesion is intracranial or extracranial.

It is not particularly unusual that clinical neurologic examination fails to differentiate patients with cerebral hemorrhage from those with cerebral thrombosis.

In the event that the presence of uniformly bloody cerebrospinal fluid indicates that cerebral bleeding has occurred, still the clinical picture often does not indicate the precise hemorrhagic lesion which is responsible. In the final analysis, under these usual circumstances, effective treatment rests upon the discovery, by angiography, of the exact nature and location of the lesion which has produced bleeding.

Cerebral angiography has long been recognized to be indispensable in young patients with suspected aneurysmal bleeding. It is only in the past several years that it has been pointed out that elderly patients with massive brain hemorrhage need not necessarily be a lost cause. Early diagnosis by angiography and an aggressive surgical approach can lower mortality rates almost fifty percent.²¹ The advent of hypothermia has added another factor of safety to major surgery in this age group, and experimental work indicates that brain cooling is definitely protective for those with cerebral ischemia if it is instituted prior to irrevocable anoxic damage.

Summary

In most patients with an "ordinary cerebrovascular accident," the anatomic nature of the responsible lesion cannot be established through clinical neurologic examination. Cerebral an-

giography, which is now a safe technique, should be used as a routine tool for investigation of all patients with hemiplegic or other manifestations of stroke. Angiography plays

a key role in determination of both common and uncommon types of brain dysfunction, for it is one of few methods that can provide objective evidence of the specific provocative lesion.

Due largely to increasing use of cerebral angiography, segmental cervical carotid disease has been found to be an important cause of cerebral infarction. Surgical relief of bifurcation obstruction will effect cure of neurologic signs in some instances. In patients with symp-

toms due to proved cerebral artery disease, anticoagulant therapy may be of considerable benefit.

Finally, in elderly patients with intracranial bleeding, mortality and morbidity can be markedly reduced through early accurate diagnoses and equally prompt therapy. In each of these instances the stroke victims deserve full investigation by means of appropriate diagnostic techniques.

References

1. Kuhn, R. A.: The Importance of Accurate Diagnosis by Cerebral Angiography in Cases of "Stroke." *J.A.M.A.* 169:1867-1875, April 18, 1959.
2. Kaplan, A. D. and Walker, A. E.: Complications of Cerebral Arteriography. *Neurology*, 4:643 (1954).
3. Segelov, J. N.: Safe Angiography. *J. Neurosurg.*, 13:567, Nov. 1956.
4. Dimant, S., Moxon, C. P. and Lewtos, N. A.: Cerebral Angiography in a Neurosurgical Service. *Brit. M. Jour.* 2:10-16, July 7, 1956.
5. Fisher, M.: a) Occlusion of the Internal Carotid Artery. *Arch. Neurol. and Psychiatry* 65:346-377 (1951)
b) Occlusion of carotid Arteries: further experiences *Arch. Neurol. and Psychiatry*, 72:187-204, Aug. 1954.
6. Johnson, H. C. and Walker, A. E.: The Angiographic Diagnosis of Spontaneous Thrombosis of the Internal and Common Carotid Arteries. *J. Neurosurg.* 8:631-659, 1951.
7. Webster, J. E., Gurdjian, E. S., and Martin, F. A.: Carotid Artery Occlusion. *Neurology* 6:491-502, July, 1956.
8. Murphey, F., and Miller, J. H.: Carotid Insufficiency—Diagnosis and Surgical Treatment. *J. Neurosurg.* 16:1-23, 1959.
9. Kuhn, R. A.: Diagnostic Considerations in Patients with Stroke. *Geriatrics* 14:135-149, March 1959.
10. Kuhn, R. A.: The Revolution Produced by Cerebral Angiography in Management of the Patient with "Stroke." *J. Med. Soc. N. J.* 56:68-75 Feb. 1959.
11. Sugar, H. S., Webster, J. E., and Gurdjian, E. S.: Ophthalmologic Findings in Spontaneous Thrombosis of the Carotid Arteries. *Arch. Ophthalmology*, 44:823-832, Dec. 1950.
12. Sweet, W. H.: Intraarterial Pressure Relationships in Cerebral Circulation. Presented to Houston Neurological Society, March 13, 1959.
13. Fisher, C. M.: Cranial Bruit Associated with Occlusion of the Internal Carotid Artery. *Neurology*, 7:299-306, May 1957.
14. Williams, C. L., and Bruetsch, W. L.: Mental Deterioration and Occlusion of the Internal Carotid Arteries in the Neck. *Am. J. Psychiatry*, 115:256-257, Sept. 1958.
15. Meyer, J. S., and Denny-Brown, D.: The Cerebral Collateral Circulation I. Factors Influencing Collateral Blood Flow. *Neurology*, 7:447-458 July 1957.
16. Rob, C., and Wheeler, E. B.: Thrombosis of Internal Carotid Artery Treated by Arterial Surgery. *Brit. M. Jour.* 2:264-266, 1957.
17. Kuhn, R. A.: Brachial-Cerebral Angiography. Exhibit, Am. Neurol. Assoc. Meeting, Atlantic City, June 14-17, 1959.
18. Milliken, C. H., Siekerts, R. G., and Whisnant, J. P.: Anticoagulant Therapy in Cerebral Vascular Disease—Current Status. *J.A.M.A.* 166:587-592, Feb. 1958.
19. Fisher, C. M.: Use of Anticoagulants in Cerebral Thrombosis. *Neurology*, 8:311-332, May 1958.
20. Wright, I. S.: Strokes—Diagnosis and Modern Treatment: II. Treatment Modern Concepts of Cardiovascular Disease. 28:525-528, May 1959.
21. Davidoff, L. M.: Intracerebral Hemorrhage Associated with Hypertension and Arteriosclerosis. *J. Neurosurg.* 15:322-328, May 1958.

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*Anti-Pruritic and
Calming Effects of*

Hydroxyzine Pamoate in Dermatology

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Dermatological conditions are almost invariably accompanied by anxiety and tension states. Such psychogenic disturbances^{1, 2} may produce or aggravate pruritus, urticaria, lichen planus, neurodermatitis, seborrheic dermatitis and other eruptions.

Although barbiturates and bromides have proven valuable adjuncts in the treatment of dermatological conditions, they too frequently produce undesirable side effects.^{3, 4}

Previous studies with hydroxyzine^{1, 2, 5} in patients with skin diseases indicate that this drug is of unusually low toxicity, well tolerated, and an effective tranquilizer. It has been classified as a psychotherapeutic antihistamine.⁶ The use of alternating courses of hydroxyzine and placebos in a clinical study of four hundred and seventy-nine patients¹ with various dermatoses indicated its effective ataractic action. The results of this study showed that three hundred and seventy-eight of the four hundred and seventy-nine patients treated experienced some degree of relief from emotional tension. Adverse reactions were minimal, and usually consisted of mild lethargy or dryness of the oropharynx.

Materials and Methods

The preparation was administered in capsules containing 25 mgms. to 50 mgms. hydroxyzine pamoate (Vistaril®)*, in daily doses from 100 to 200 mgms. A total of seventy-five patients with dermatological conditions such as eczematoid dermatitis, allergic dermatitis, neurodermatitis, nummular dermatitis, acne, seborrheic dermatitis, pruritus, lichenified dermatitis, and miscellaneous conditions, were treated for varying periods of from one to two weeks. The ages of the patients ranged from fourteen to seventy-nine years. Body areas predominantly affected were hands, fingers, arms, legs, and scalp. The following dermatoses, eczema and skin conditions were seen on various parts of the patients' bodies: *Scalp*: moderate seborrhea, rash, and pustules; *Forehead*: slightly pigmented macules; *Face*: bluish cysts and scars, itchy patches and rash; *Ears*: itching rash; *Neck*: markings of skin on nape, large irregular plaques; *Cheeks and Chin*: pigmented macules; *Chest*: scattered faint scales and macules; lentil-sized inflammatory papules and wheals; *Arms*: scaly red patches, thickened skin; *Hands and Fingers*: itchy and oozing patches, scaly plaques, crusted dermatitis, cracking of skin, wheals,

* Pfizer Laboratories, Brooklyn, New York.

TABLE I OVERALL RESPONSE WAS 72 (96%) OF 75 PATIENTS

DIAGNOSIS	CASES	E	G	F	P	SIDE REACTIONS
ECZEMATOID DERMATITIS	28	3	14	10	1	3 (Slight drowsiness)
ALLERGIC DERMATITIS	16	2	11	2	1	0
NEURODERMATITIS	10	2	6	2		0
NUMMULAR DERMATITIS	4		4			3 (Slight drowsiness)
ACNE	4	1	2	1		1 (Slight drowsiness)
SEBORRHEIC DERMATITIS	1		1			1 (Slight drowsiness)
PRURITUS	6	2	3		1	0
LICHENIFIED DERMATITIS	2		2			0
MISC. DERMATOSES	4	2	1	1		3 (Marked and slight drowsiness)
TOTALS	75	12	44	16	3	11

eczema, burning pain, rash, swelling, redness of nail, yellowish plaques, and large irregular plaques; *Back*: wheals, large patches, red scales; *Legs*: red scaly patches, large irregular plaques, red scales, and eczema; *Buttocks*: itching skin, lichenified patches; *Groin*: lichenified patches; *Crotch and Upper Thighs*: dry scaling and redness; *Feet*: yellowish plaques. Slight to intense pruritus was present in almost all conditions.

We evaluated the action of hydroxyzine in regard to its antipruritic and calming effects, influence on sleep habits, social attitudes such as behavior toward the patients' family, friends, and business contacts, and in regard to its overall benefit to the patients.

Results

The overall results in Table I indicate that seventy-two (ninety-six percent) of seventy-five patients in this study responded to hydroxyzine pamoate. All patients, except one, were fully or partially relieved from pruritus. A further breakdown of the data reveals twelve (sixteen percent) excellent, forty-four (fifty-nine percent) good, sixteen (twenty-one percent) fair, and three (four percent) poor response. Our study on the calming effects, sleep habits and

social habits (family, friends, business contacts) in this series were helpful in the overall evaluation of the patients. Each disease category was evaluated separately. The calming effects of hydroxyzine in most patients were good. According to Table II, seventy-three (ninety-seven percent) patients of the seventy-five treated experienced relief of anxiety and tension; two (three percent) had no benefit from the medication. A similar therapeutic response was noted when the patients were interviewed in regard to their sleep habits. After careful questioning we found that seventy-four (ninety-nine percent) patients noted a marked to slight improvement in sleep habits, while one reported no improvement.

When we evaluated the 'social habits' of this patient group, we paid particular attention to their temperament, attitude toward their family, friends and outside business contacts. This was achieved by casual conversations with family members, and persons with whom the patients had frequent contacts. The data show that all patients improved their 'social habits' from a marked to a slight degree.

Side reactions in this study were mostly slight and insignificant. Drowsiness occurred in

TABLE II OVERALL RESPONSES OF 75 PATIENTS

PATIENTS	CALMING EFFECTS: 73 (97.33%)			SLEEP HABITS: 74 (98.66%)			SOCIAL HABITS: 75 (100%)			
	MARKED	MOD.	SLIGHT POOR	MARKED	MOD.	SLIGHT POOR	MARKED	MOD.	SLIGHT POOR	
ECZEMATOID DERMATITIS 28	1	24	2	1	24	3	1	25	2	
ALLERGIC DERMATITIS 16		14	1	1	14	1	2	13	1	
NEURODERMATITIS 10	1		9	1		9	1		9	
NUMMULAR DERMATITIS 4		4			4			3	1	
ACNE 4	1	2	1	1	2	1		3	1	
SEBORRHEIC DERMATITIS 1			1			1		1		
PRURITUS 6	1	3	2		4	2	1	3	2	
LICHENIFIED DERMATITIS 2		2			2			2		
MISC. DERMATOSES† 4	1	2	1	1	3			3	1	
TOTALS 75	5	51	17	2	4	53	17	5	53	17

† Pigmented macules on face; Psoriasis vulgaris; Pityriasis rosea; Verruca vulgaris

* Social relations with family, friends and business contacts

eleven patients, but was eliminated by reducing the dosage of the drug. In no case was it necessary to discontinue treatment.

In order to illustrate the therapeutic effects of hydroxyzine in more detail, two case reports are given below:

• M. R., a 21-year-old waitress, presented patches of a brownish, finely scaling, macular eruption on her abdomen and back consistent with a *tinea versicolor*. Her hands were cold and moist, and her chest and back damp. She ate and slept poorly and seemed jumpy and irritable. These symptoms developed about two years ago when she recovered from an auto accident in which her fiancé died. Hydroxyzine pamoate, given orally 50 mgms. q.i.d., produced less sweating, induced better eating and sleeping habits, and apparently promoted a gain of five pounds. In addition, she responded to antifungal topical measures.

• S. P., a 55-year-old female presented a dark red, bolster-like swelling about the right middle finger. The nail was ridged and darkened. The diagnosis of "chronic paronychia" had been made, and she had received treatment for recurrent attacks of severe infection and pain for the past four years. Although the condition seemed to be quiescent, her anxiety and apprehension made this visit seem an emergency. When 200 mgms. of hydroxyzine pamoate daily were administered orally in divided doses she became much calmer, and carried out treatment measures without the disabling apprehension she formerly exhibited.

Discussion

Hydroxyzine was recently used as an adjunctive agent in a clinical study of fifty patients with chronic urticaria. The author reports that most tranquilizers may be tried for their ataractic

effect, but hydroxyzine seems to be more effective in urticaria. "The relief of itching and hives is often dramatic."²

Beneficial action of this drug in dermatological conditions is also reported by other authors who stated that objective and subjective evaluation of hydroxyzine led them to the conclusion that this preparation is a valuable adjunctive agent in the treatment of dermatoses because emotional tension was an ever present factor. Long-term administration of hydroxyzine did not cause abnormalities in the hematopoietic system, in the urinary tract or in liver function in the patients studied.

Essentially, the comments by the above investigators seem to substantiate our findings with hydroxyzine pamoate. In most of the patients with acute and subacute dermatitis in whom pruritus and anxiety were prominent symptoms, we prescribed 100 mgms. of hydroxyzine pamoate b.i.d. for two days, and then reduced the dosage to 50 mgms. t.i.d. This procedure proved to be effective, since we were able to reduce very markedly the use of other antihistaminics and, especially, steroids.

Individual dosage adjustment will result in better over-all control of patients. Owing to the exceptionally low toxicity of hydroxyzine pamoate, considerable latitude of dosage can be allowed. Primarily, however, the response of the patient should guide the physician in the increase or decrease of medication.

The alleviation of anxiety is not only imperative in the practice of the dermatologist but in the entire spectrum of medical practice. Hydroxyzine pamoate not only alleviates psychoneurotic tendencies, but also relieves the aggravating pruritus. The absence of pruritus and anxiety creates in the patient a feeling of well being and promotes the healing of lesions.

Summary

Hydroxyzine pamoate (Vistaril) was administered orally in daily doses ranging from 100 mgms. to 200 mgms., to seventy-five patients with dermatological conditions. Overall results show that of seventy-five patients, seventy-two

(ninety-six percent) responded to treatment; three patients had no benefit from therapy. Pruritus was alleviated in most of the patients.

More specifically, hydroxyzine pamoate had

a marked to slight calming effect in seventy-three (ninety-seven percent) of seventy-five patients, it effected a marked to slight improvement of sleep habits in seventy-four (ninety-nine percent) of seventy-five, and improved, 'social habits' in all seventy-five patients. Various degrees of drowsiness occurred in 11

patients, but was alleviated when we reduced the dosage.

Hydroxyzine pamote is an effective antipruritic and tranquilizing preparation with an exceptionally low order of toxicity. Individual dosage adjustment will usually result in a better overall response to therapy.

References

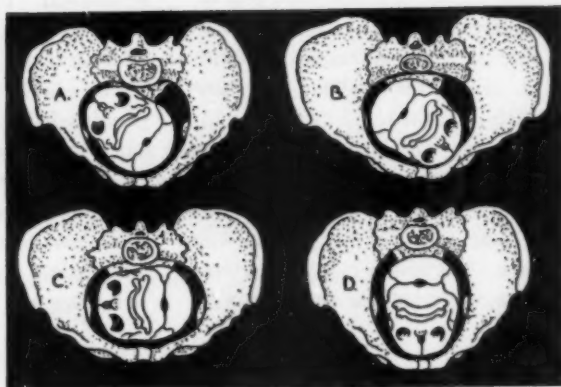
1. Robinson, H. M., Jr. et al: Hydroxyzine Hydrochloride, South. Med. J. 50:1282 (Oct.) 1957.
2. Eisenberg, B. C.: Management of Chronic Urticaria, J.A.M.A. 169:14 (Jan. 3) 1959.
3. Winter, N. J., and Beer, R. L.: Exfoliative Dermatitis Due to Phenobarbital, Arch. Dermat. & Syph. 43:473, 1941.
4. Reed, C. E., et al: Acute Barbiturate Intoxication, Ann. Int. Med. 37:290 (1952).
5. Robinson, H. M., Jr., Robinson, R. C. V., and Strahan, J. F.: Hydroxyzine Hydrochloride in Dermatological Therapy, J.A.M.A. 161:604 (1956).
6. Council on Drugs: J.A.M.A. 166:1040 (March 1) 1958.

31 Lincoln Park



CLINI-CLIPPING

Adaptation of the fetal head to that diameter of the inlet most suited for its reception. A—Gynecoid type. B—Android type. C—Platypelloid type. D—Anthropoid type. (after McCormick)



THE INTERPERSONAL
RELATIONSHIP BETWEEN

Physicians
and
Psychologically
Unhealthy
Patients

HOWARD J. SHEAR, PH.D.
Wilmington, Delaware

In this paper, I wish to discuss the interaction between physicians and psychologically disturbed patients. Because the manner in which a physician can most efficaciously relate to such patients, or any patient, is a matter of the physician's own unique personality, each physician will deal with individual patients in particular situations in a way which the physician finds most comfortable. Most probably, an important factor in the physician's comfort is the extent to which he feels that he is fulfilling his ethical and professional responsibility. It would be presumptuous to set forth advice that would apply to all such unique and varying human relationships; therefore, some clarifying of the factors involved is the present intended goal.

Those of us who are interested in applied-scientific, therapeutic endeavors recognize that understanding in itself is not always enough. For example, it is possible for a physician to have complete understanding of the patient's illness but be unable to bring about a cure because of his inability to affect changes in the morbid condition. He might even have a complete understanding of what is needed to affect such changes. Sometimes, understanding is either a necessary first step or helpful in itself in achieving a cure. However, understanding is not always an asset in helping an emotionally disturbed patient. It may lead to interference with the natural, intuitive, unconscious help which one person can give to another. For example, when a child is disturbed his parent might intuitively and emotionally comfort, support, and help the child live through the particular "crisis." If the parent would stop to understand all of the factors involved, his spontaneous helpfulness would be destroyed. Being aware that there are values as well as dangers in understanding human relationships, let us consider some of the factors involved when a physician is visited by a psychologically malfunctioning patient.

All patients, regardless of their emotional and mental well being, come to the physician

From The Veteran's Administration Hospital.

for relief of their symptoms, and even patients with minimal psychological difficulties may be very anxious about their condition. However, the patients who are in need of psychological help differ in respect to the quality with which they relate to their physicians. These qualitatively different reactions to their physicians are manifestations of the psychological problems of these patients. These behavior patterns are more experienced and felt by the doctor and are usually interpreted by him intuitively. Psychologically malfunctioning patients look to the physician to satisfy their need for a human relationship where they feel accepted because they feel, most usually unconsciously, that there is no other person available or capable of giving them this desired relationship. Formally and professionally this desired relationship is termed psychotherapeutic. Despite the lack of awareness of this need for a psychotherapeutic relationship and ambivalence in regard to it, there are varying behavioral manifestations of the need which the patient continuously acts out in relationship to the physician.

Patients, whose basic problem is not psychological, are not desperately in need of a psychotherapeutic relationship with the doctor because in their daily lives they have been able to form meaningful, satisfying relationships with other people. To use professional jargon, they have a variety of informal psychotherapeutic relationships in which they are able to satisfy many of their needs. This is not so with the psychologically malfunctioning patient. Deep down, he is in need of a psychotherapeutic relationship because his human relationships are inadequate. He might even spontaneously deny that his human relationships are inadequate, proclaiming how he loves his wife and children and listing the number of friends he has. He might also deny that he needs anybody. However, his need for psychotherapeutic relationship is manifested by his behavior with the physician, despite what the patient says to the contrary.

Characteristically, these patients will relate to physicians expecting to be treated by the

doctor as objects rather than as persons, but at the same time are set to react against the doctor's dealing with them in this way. They anticipate being treated as objects rather than persons because this has truly been their experience. Early in their lives significant people probably tended to relate to them impersonally. Later, they either called out such treatment in others, or if others reacted to them as persons they either withdrew from, or distorted these potential experiences. Because they anticipate that they will be rejected as persons, they might be intensely demanding of the physician so that they will (this is unconscious) "force the doctor to relate to them on a personal basis." They might be rebellious or stubborn, attempting to "beat the doctor to the punch" by rejecting him before he has a chance to reject them. Whatever behavioral maneuvers these patients use in their efforts to react against being treated like objects there is either an intense, desperate feeling about them or an emotional detachment, coldness, or flatness which seems inappropriate. If one does not pay attention to the feelings which these patients express to their physicians their behavior might appear illogical.

This reaction against being treated like an object rather than a person is illustrated by contrasting it with the psychologically more healthy, who let us say, are in reality treated rather mechanically by a physician. Some physicians are so busy that it is just not possible to spend too much time with each patient or become involved in an emotional, personal relationship with them. Also, some very competent, in fact excellent physicians, just do not have a desire to become personally involved with each patient, and so, do in fact treat many patients, but not necessarily all, in a mechanical way. A psychologically more healthy person can calmly accept such impersonal reactions on the part of the physician, and value his diagnostic and therapeutic skills and respect his store of medical knowledge. The physician competently helps him to get well and this is what he values most in this

relationship. He might not like being treated as an object and might, but not always, prefer being treated like a person in a medical relationship; but he is not disturbed by such treatment and does not react defensively against it. This is so because outside of the doctor's office he has a variety of human relationships which satisfies his needs as a person. However, the psychologically malfunctioning patient cannot so calmly accept such treatment. Unconsciously, he must have something more, because he does not have adequate informal psychotherapeutic relationships. He needs the physician to be his psychotherapist. Usually, it is vitally important to the maintenance of his equilibrium and his concept of self for the patient to be unaware of his need for a psychotherapeutic relationship. In order to prove that he does not have such a need, he might act in a manner which is the very opposite of a needful person.

If the physician informs him that he has not found any organic trouble and that it is his opinion that the patient's symptoms result from "nerves," this patient might react in a variety of ways. Each reaction however, reflects the underlying need for a personal relationship. The patient may feel and act as one rejected or confused, out on a limb, or may say, "Okay, now give me something to cure my nerves." Perhaps, he might be temporarily relieved or "magically cured" by the doctor's, in-the-patient's-mind, omniscience; but he will be back fairly soon at the doctor's office with new symptoms and demand attention. "He doesn't need attention, but his symptoms do." His behavior belies this conscious attitude.

If physicians can give the time and generally relate to their patients as persons rather than objects, the psychologically more healthy patient will probably be satisfied with the time spent with the doctors in this personal way. Their primary need is relief of their symptoms, and so, they stop going to the physician's office after a short period of time. Not so with the psychologically unhealthy. Being treated like a person affects them deeply.

They may open up and communicate intense, pent-up feelings. If the physician-psychotherapist continues to accept and reacts to the patient as a person, the troubled individual may more and more be able to express the psychological conflicts which produced the tension states which led to the initial symptoms. These patients may become fearful about becoming involved in a kind of human relationship which they have never before experienced. They may wish to run away. Some, having their "must-be-denied" need to be treated like a person stimulated by the physician's behavior may become resentful and angry. There are an innumerable variety of ways these people may react to a psychotherapeutic relationship.

Psychologically malfunctioning patients present unique and challenging problems to the physician. These problems are different in the sense that psychologically disturbed patients, despite their manifest complaints, need personal help as well as classical medical care which a particular physician might more easily provide for his patients. Perhaps he might feel unable to provide a psychotherapeutic relationship because of possible limitations, such as time. Those physicians who are interested in giving these patients a personal relationship and have the desire to do so, will find such work challenging, time consuming, personally rewarding, and requiring all of the physician's ability to be a sensitive, responsive, accepting, warm, honest, firm, self-disciplined, and self-aware human being. Such physicians should be emotionally willing to help the person learn how to form informal psychotherapeutic relationships so that he is no longer "tied" to the therapist. If for one reason or another the physician does not wish to be the patient's psychotherapist, he should refer the particular person to a psychotherapist whom he feels has the above mentioned attributes and whom he feels is able to relate to the particular patient as a person rather than as an object.

2. Veterans Administration Hospital

Examination of the Colon

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The examination of the colon by roentgen methods may be as rewarding or as frustrating as any procedure the radiologist is called upon to perform. There are lesions that seem to hide and reject all efforts at detection while at other times far advanced lesions may be found on routine examination. To accomplish the best result for the patient requires careful cooperation between referring physician and radiologist and to this end the following discussion will attempt to outline factors which have proved valuable in establishing a diagnosis in suspected colonic lesions.

The initial preparation and physical examination of the colon are of vital importance as careful correlation of physical findings and roentgen study is essential to best results. A careful history and physical, digital examination and sigmoidoscopy should be performed before x-ray examination is attempted. Shallow reported in a series of seven hundred and fifty instances of colon cancer⁶ that seventy-seven percent of the lesions were found in the rectum, recto-sigmoid, or sigmoid colon. The suspicion of a lesion in the right colon does not permit the omission of careful study as in the same series thirty-one patients had multiple lesions, nineteen of them having one of the lesions in the rectum. It is also of note that the rectum is not an area in which radiologic examination can be relied upon as it fills rapidly with barium obscuring lesions, or emp-

ties so completely that no contrast material remains to outline a pathologic area.

Adequate preparation of the patient is a necessity and prerequisite to careful x-ray study. Castor oil, two ounces, given the night prior to examination with a tap water enema, using one pint of water, the morning of the study, at least two hours prior to examination, has given good results. Recently Bisacodyl (Dulcolax®-Geigy) in doses of 15 mgms. has been advocated by Poppel, et al.⁴ Three tablets, 5 mgms. each, are given the night prior to examination followed by a 15 mgms. suppository rectally on the morning of examination. Reports indicate good results but in the few patients in whom we have used this drug to cleanse the bowel after barium enema in order to do Upper GI studies we find evacuation to be incomplete and not as satisfactory as with castor oil. The method is used as an alternate preparation where castor oil seems contraindicated.

The patient is given nothing by mouth after midnight. This is done to eliminate the gastrocolic reflex which empties the terminal ileum into the cecum. The opaque material is then frequently carried to the sigmoid area on the post-evacuation study and obscures the detail in this important area. It also makes use of the air contrast study as a part of the same examination unreliable.

The preparation of children with suspected megacolon deserves a special warning. The preparation here is accomplished with colonic irrigation and this is done with physiologic saline solution to prevent water intoxication. The barium used in examination is also mixed with saline instead of plain water for the same reason. The rectum is outlined and if a narrowed area is shown just enough contrast material is used to determine the calibre of the bowel above the area without attempts to fill the entire colon.

Premalignant and Malignant Lesions

To cover all aspects of colon disease is beyond the scope of this paper and we will confine the study to premalignant and malignant lesions.

Polyps or adenomas of the colon are not uncommon being reported in ten percent to nineteen percent of all cases in various studies.^{1, 2, 3} They are generally considered to be premalignant and their surgical removal on this basis seems justified. Painless bleeding is the most common complaint and deserves careful study. The presence of external hemorrhoids may seem to explain the bleeding, but may be very misleading and is, therefore, no excuse for failure to carry out a careful study above the anal region.

Familia polyposis is another indication for study of the colon. This is a relatively rare condition, but once found in the family is indication for careful screening of all members as these lesions invariably lead to malignant change if left alone.

The x-ray study for polyps includes regular barium enema, air contrast study, and if entirely satisfactory answers are not obtained this should be followed by re-preparation of the patient with liquid diet for forty-eight hours and thorough cleansing with the air contrast study repeated. We also employ relatively thin barium, high kilovoltage technique and pressure spot films in our studies.

Cancer of the colon may present itself in multiple and varied ways, the signs and symptoms varying with the location of the lesion.

The right colon develops from the mid-gut and has absorbing qualities. The fecal stream is liquid and it is unusual to find obstructing symptoms presenting. Polypoid or ulcerating lesions are the most common and the finding of a mass from penetration and abscess formation, toxemia and anemia may be the primary findings. The anemia is usually rather profound and cannot be explained entirely by blood loss. Whipple pointed out the toxic factors he felt were responsible in the '20's and at present the exact mechanism is not entirely explained.

The left half of the colon is derived from the hind gut and acts mainly as a reservoir with re-absorption of water from the lower portion. The fecal stream becomes solid and it is more common to find changes in bowel habit produced by lesions in this area. This may manifest itself by either an increasing and progressive constipation or by diarrhea. The nature of the growth also increases the obstructive characteristics of cancer of the left colon as scirrhus carcinoma and encircling lesions beginning at the mesenteric junction are the usual pathologic lesions. The obstruction is usually incomplete but may become complete rather abruptly necessitating decompression of the bowel before corrective measures can be instituted. Here the plain film of the abdomen followed by the careful installation of barium may be a very valuable diagnostic aid. Where lesions of this type are suspected barium by mouth is contraindicated as it multiplies the surgeon's problem.

Melena, gross or occult, may be the first presenting evidence of a lesion and a careful history here may give valuable leads as to the location of the lesion. Bleeding may occur from any location in the gastrointestinal tract or respiratory tract and does not necessarily indicate a colonic lesion. Tarry stools may occur from a lesion in the colon, but this finding usually indicates bleeding in the upper intestinal tract. Blood from the right colon is typically dark and may be described as prune juice or dark cherry in appearance and is expected to be mixed in the stool. Bleeding from the left colon or rectum is usually bright

red in color and smeared on the stool. If there is rapid transit through the bowel bleeding from upper intestinal tract hemorrhage may be brighter than the tarry stool usually associated with this location of bleeding.

The technical details of the x-ray examination will be omitted with one word of warning. Even with the most careful examination it is possible that a single examination may be inconclusive. For this reason the radiologist does not hesitate to repeat the study where he can see the indications. If a negative report is not compatible with the clinical impression and physical findings the clinician should not hesitate to discuss these findings with the radiologist and request a repeat study. No matter how careful one tries to be, such a request

cannot help but make one doubly alert and also gives two examinations to compare, often to the very distinct advantage of the patient.

As techniques are perfected for Papanicolaou smears from the colon⁵ the family physician and radiologist will be alerted to the presence of a lesion which may give considerable aid in the detection of the small, operable lesions.

In summary the following points are stressed:

- (1) Careful history and physical examination of the patient.
- (2) Adequate preparation for x-ray studies.
- (3) Close correlation of findings between family physician and radiologist.
- (4) Where doubt exists repeat studies are indicated without hesitation.

Bibliography

1. Enquist, Irving F. *Surgery* 42:681-688 October 1957.
2. Hauch, Edward W., et al. *Gastroenterology* 16:669, 1950.
3. Jackman, Raymond, and Mayo, Charles W., *Surgery, Gynecology and Obstetrics*, 93:327 1951.
4. Poppel, M. H., and Bangappa, C. K., *American*

Journal Roentgenology 81:696 April 1959.

5. Raskin, Howard F.; Kirsner, J. B.; Palmer, Walter *Journal American Medical Association* 169:8; 789-794.

6. Shallow, T. A.; Wagner, F. B., Jr.; and Colcher, R. E. *Ann. Surgery*, 142:164 August 1955.

624 Quaker Lane

CLINI-CLIPPING



Impetigo types—Illustrated on the left is the crusted type and on the right, the circinate type of impetigo.

CHYMOTRYPSIN

ITS VARIED USES IN EYE, EAR, NOSE,
THROAT, AND RELATED CONDITIONS

BEN H. JENKINS, M.D., Newnan, Georgia

The therapeutic application of chymotrypsin became possible after its crystallization in 1933. It is a proteolytic enzyme extracted from mammalian pancreas and is now produced in a pure and stable form which permits accurate assaying of its enzymatic activity. Experimental investigations established the greater anti-inflammatory action of chymotrypsin as compared with trypsin.¹ Other investigations demonstrated that chymotrypsin has no effect on the prothrombin concentration and does not shorten the coagulation time of normal blood.^{2, 3} A great many clinical studies have shown the efficacy of chymotrypsin in a variety of clinical conditions, and its application is steadily expanding into nearly every medical specialty. In the following, a large number of conditions from the eye, ear, nose and throat field are enumerated without going into detail, to give an idea of the numerous indications for chymotrypsin and serve as a guide for the general practitioner.

Two different actions of chymotrypsin are therapeutically utilized: the proteolytic action which is effective on topical application and the anti-inflammatory and anti-edematous action which is effective on systemic application. At present the relation between these two entirely different actions of the proteolytic enzymes is not understood. It appears, how-

ever, that the intensity of the anti-inflammatory action is proportional to the magnitude of the proteolytic action.

Ocular Conditions

Chymotrypsin was given (by injection) to a total of three hundred and forty-seven patients. Conditions treated were extraocular trauma, uveal tract inflammation, hyphema and diabetic retinal hemorrhage. In the traumatized patients, pain and swelling were remarkably reduced in twenty-four to forty-eight hours. All patients having inflammation of the uveal tract showed a gratifying improvement within one week. In all instances of hyphema, improvement occurred within twenty-four hours. In diabetic retinal hemorrhage, visual acuity improved and was accompanied by some funduscopic improvement. In a patient with endophthalmitis, chymotrypsin was combined with antibiotics with satisfactory results. This combination is very effective because antibiotics have no anti-inflammatory effect and chymotrypsin has no anti-infectious action but seems

The chymotrypsin preparations used by me were Chymar® Ointment, Chymar® in Oil, Chymar® Aqueous and Alpha Chymotrypsin—manufactured by Armour Pharmaceutical Company, Kankakee, Illinois. This company has a buccal tablet on the market which this author has not evaluated.

to make the infected area accessible to the antibiotic due to its decongestant action.

The effect of the administration of chymotrypsin in retinal hemorrhage and diabetic retinitis has not yet been of sufficient duration to be conclusive. A number of patients with secondary inflammations due to retrobulbar neuritis, acute dacryocystitis and allergic conjunctivitis showed a favorable response within one week.⁴

A severe electrical burn of the eyelids and thermal burns of first and second degree of the eyelids and portions of the face were treated with Tryptar Ointment,[®] which produced rapid healing with no or minimal scarring respectively.⁵

The latest preparation of chymotrypsin for ophthalmic conditions is a topical preparation in the form of alpha-chymotrypsin.

I have found that in very severe dendritic ulcers, washing the eyes with a solution of chymotrypsin (100,000 units of alpha-chymotrypsin powder reconstituted with 4 cc. of sterile water) promoted faster healing of the cornea with no corneal scarring.

Perhaps the most interesting use of alpha-chymotrypsin is in cataract surgery. In 1955, I tried to dissolve vitreous opacities in an eye having no vision by injecting alpha-chymotrypsin into the vitreous chamber. To my great surprise, the lens floated free in the anterior chamber about ten minutes after the second injection, and there was nothing else I could do but remove it. This accident, however, gave me the idea to try alpha-chymotrypsin in a difficult cataract extraction which I performed two months later. By lavaging the posterior chamber around the zonule with a solution of alpha-chymotrypsin, the lens freed itself and was easily removed. Chymotrypsin either digests or markedly weakens specifically the zonule fibers of the human eye so that very little effort is needed to remove the lens. In the meantime, many hundreds of successful cataract operations have been performed with the help of alpha-chymotrypsin here and in Spain, where Barraquer has corroborated my original experience.⁶

Otologic Conditions

Inflammations of the external canal respond well to the application of chymotrypsin and trypsin in ointment form which also provided, in addition to proteolytic enzyme action, the antibiotic effects of polymyxin and bacitracin. The ointment, through its proteolytic action, clears the canal of pus and debris and paves the way for specific therapy which may then be applied to a clean canal in direct contact with the lining of the canal. The overall effects is that of a chemical mop. The relief afforded by the rapid decongestion and reduction of swelling is profound. Most of the more than one hundred and eighty-five patients treated with this method reported that the ear felt much better when they returned twenty-four hours after insertion of the ointment.⁷

Parenteral chymotrypsin has been employed in such conditions as chronic otitis media with discharge, to reduce the inflammatory tissue reaction after surgery around the Eustachian tubes, and in Menière's disease.

I now have a series of twenty-six patients who have had this syndrome. A daily injection of 1 cc. of chymotrypsin relieves nausea and dizziness; the tinnitus, however, remains unaffected.

The results are usually accomplished on the fourth or fifth day.

Rhinologic Conditions

Sinusitis can be treated successfully with chymotrypsin injections. They should also be given as an adjunct in more severe cases of rhinitis.⁸

When the nasal passages are blocked due to allergy, drug reaction or over-use of nose-drops, I have obtained good results by injecting ½ to 1 cc. of chymotrypsin into the swollen turbinates.

Laryngologic Conditions

Chymotrypsin administered systemically is very useful in relieving the reaction of traumatized tissue. It is especially indicated as both a prophylactic and therapeutic measure after surgery involving the throat, after bron-

choscopy and esophagoscopy, to minimize the sequelae.

Related Conditions

In three cases of Costen's syndrome (temporomandibular malfunction) I injected 1 cc. of chymotrypsin directly into the afflicted temporomandibular joint to relieve the pain. One of the patients had previously been injected with hydrocortisone without results. In all three instances, the patient obtained relief within forty-eight hours after injection with chymotrypsin.

I want to mention only in passing a few conditions, although not strictly in the eye, ear, nose and throat field, which occur frequently enough in the face where cosmetically

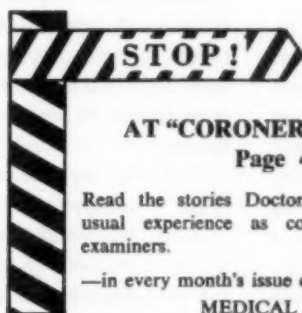
poor results are especially painful for doctor and patient. By these I mean burns and acne scars. In burns, chymotrypsin ointment, and the injectable have been employed successfully. The ointment is excellent in second and third degree burns. It keeps non-infected wounds clean and clears infected wounds from bacterial invaders. In some instances the ointment appeared to hasten healing to such an extent that skin grafting became unnecessary. In nearly all instances, there was quick pain relief.^{9, 10}

After planing or sandpapering acne scars, chymotrypsin ointment not only considerably reduces the healing time after planing, but also prevents formation of an eschar and an infection beneath it.

References

1. Miechowski, W. L. and Ercoli, N. J.: *J. P. Pharmacol. & Exper. Therap.* 116:43, 1956.
2. Sherry, S., et al.: *J. Clin. Invest.* 33:1303, 1954.
3. Tagnon, H. J., et al.: *Am. J. Physiol.* 143:644, 1945.
4. Jenkins, B. H.: *J.M.A. Georgia*, 45:431, 1956.
5. Taub, R. G.: *Illinois M. J.* 114:19 (July) 1958.
6. Raiford, M. B.: *J.M.A. Georgia* 48:163, 1959.
7. Jenkins, B. H.: *Clinical Medicine* 6:397 (Mar.) 1959.
8. Jarsons, D. J.: *Clinical Medicine* 5:1491, 1958.
9. Morani, A.: Presentation at Meeting of International College of Plastic Surgeons, London, July 1959.
10. Jenkins, B. H., and Powell, J. H., Jr.: Presentation before Coweta County (Georgia) Medical Association, 1957.

8 Lee Street



AT "CORONER'S CORNER"

Page 41a

Read the stories Doctors write of their unusual experience as coroners and medical examiners.

—in every month's issue of
MEDICAL TIMES

Childhood Emotional Disorders

The general practitioner sees a large number of childhood behavioral disorders. With a desire to help, some psychiatric sophistication and a continuous self-evaluation of the relationship between his techniques and his results, he can successfully manage many of these cases.

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Indianapolis, Indiana

Most children who have behavioral problems are initially seen by the family physician. Some he will refer for specialist care. Others he will dismiss with the reassurance that they are only transient stages in the child's development. The rest will be expertly or poorly, wittingly or unwittingly, pleasantly or reluctantly managed by the family physician.

Departments of pediatrics and psychiatry in many medical schools offer undergraduate training, but internships and residencies (other than psychiatric) rarely foster the physician's continued growth in this area of medicine. To aid the practicing physician, many state medical societies and medical schools offer graduate "refresher" courses. The material presented here will be based on such a course offered at the Indiana University Medical Center.

At times, the general practitioner has no

question about whether he should refer a certain child for specialist evaluation. Frequently, however, he is in doubt. When in doubt, he is usually wiser to refer his patient for consultation or at least to discuss the case with the specialist. He will soon learn which specialists can and will be of aid to him. He, as the referring physician and the physician still responsible for the overall health of the patient, has every reason to expect written and/or phone discussions which are in language he can understand and utilize. Periodically, he will need additional information about his patients whom the specialist has accepted for therapy. He may penalize his patient and his future relationships with the specialist if he uses these reports carelessly and injudiciously. But this is true of any medical information. The general practitioner has no use for all of the details of the patient's unconscious psychopathology or personal confidences. This should never be offered by the specialist.

Many general practitioners are fearful of dealing with "emotional" or "psychogenic" disorders. Usually they have not learned that the basic approach to these patients is not different from that in the rest of their medical practice, namely:

- 1) All patients are uncomfortable (i.e. unhappy) people with *dis* ease.
- 2) All symptoms are exaggerations of what one usually expects in "normal" physiological responses.
- 3) Improvement without complete "cure" is an acceptable and frequent goal in medicine.

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MANAGEMENT IN GENERAL PRACTICE

A physician who has the attitude that his patient enjoys his symptoms or deserves his symptoms for being so dumb, careless, or immoral can help only a limited number of patients. It would not be considered medically sound or responsible for a physician to refuse to set the leg of a patient because the patient should have had more sense than to ski. This is not different when we find that our patient has a psychogenic symptom such as the child who avoids gym classes to prevent further "damage" to his phantasied "weak" heart.

When a human experiences a threat to his accustomed physiological, psychological, or sociological state, he reacts to reverse it. When this response is easily successful, the individual is usually unaware of both the stress and the response. When the adjusting responses are relatively unsuccessful, we have the appearance of what we, physicians, call *symptoms of disease*.

In all disease, the symptoms are *only* the cry of distress. The physician must never forget that there is *always* underlying acute or chronic, mild or severe pathology.

In children's behavior disorders, this pathology is usually to be found in conflicts between the child and his parents. It isn't surprising that conflicts should arise in long-term close relationships between persons of such marked age difference and frequently mutually exclusive desires. Small conflicts are going on all of the time and provoke adjustment responses for which the patient has little need to become painfully aware. At times, when the stress becomes too great or prolonged and

the responses too ineffectual in bringing about the necessary adjustments, symptoms will appear. For example, when a bright, but overly protected child approaches increasingly broad areas of competition in his school contacts, he may begin to show inappropriate defiance against all adults.

Some of these symptom-producing conflicts are deeply unconscious (i.e., hidden to the patient for purposes of verbal recognition and expression). Even though the patient wishes help, he cannot be charmed or threatened into simply revealing these repressed perceptions. As a "rule of thumb," these "unconscious" problems should be managed by the trained specialist. They are comparable to major surgery in the skill and experience needed for their successful therapy.

Even though "unconscious conflicts" are responsible for part of the symptomatology, the psychiatrically oriented general practitioner can frequently manage many of his cases quite well by dealing only with those conflictual areas of which the child and/or his parents have some degree of awareness. This group of patients presents symptoms ranging from mild eating or bedtime conflicts to fairly severe school or somatic problems. The pre-schooler, who refuses to eat, certainly has many unconscious conflicts about all that food means in the relationship with his mother. However, he will frequently improve when the physician can help the mother examine and modify her "conscious" meal-time behavior. Again, it cannot be too strongly emphasized that the physician without a great deal of specialized training and experience, who involves himself with his patient's "unconscious" is treading on very dangerous ground.

The general practitioner may elect to work with the child alone, parents alone, whole family together or combinations of these depending, as much as anything else, on his own comfort and ease with his patients. Since he will be using primarily support and counseling, he may find he is best able to communicate verbally with the parents. However, after making several serious, self-observant attempts to

interview children, he will usually be pleasantly surprised at its ease. As in the rest of medical practice, it is rarely wise to treat or advise without examining the patient personally.

In younger children the influence of the parents will be very great and the physician may wish to rely heavily on his ability to help the parents improve their child rearing patterns. He should remember that parents usually have healthy goals for their children even though these goals may differ somewhat from those of their neighbors or the physician. However, to be able to select the appropriate child rearing patterns, the parents' ambitions must be compatible with the child's potentials. The physician's job will be to help them evaluate the efficacy of the patterns of influence they use and to alter these in a way which is more likely to accomplish their desired goals. The parents' desire to have their child eat enough "proper" food is not unhealthy but their constant expressions of over-concern may communicate something quite different to the child. He may see this as a threat to his growing up and making decisions for himself; or he may have found that his parents seem to "pay attention" only to his misbehavior (thereby encouraging this rather than the behavior they desire); or he may be struggling to be like his father, only to find his mother scolding him for that which she tolerates or encourages in the father.

A physician must always start by taking a thorough, detailed, and unfortunately, time-consuming history. There is no substitute for this in the management of a child behavioral disorder. It is usually wiser to first interview the parent alone to find out:

Exactly what do they see as the problem.

How long has it existed.

Why have they decided to seek help now.

What are they already doing.

Is this their own idea or upon advice from someone.

What are their recognized goals for the child.

Are these realistic.

Are their methods working in any other areas.

Have they ever worked better than they are now.

Do the parents have any ideas about where and why they have been unsuccessful.

Do the parents have any ideas they have not yet tried.

Are there reasons they fear acting on their own ideas.

To understand the answers one must know something about family constellation and living standards of his patient.

The physician should not forget that the child can also contribute to the history. He will usually do this most willingly when seen alone and when he believes the physician is not planning to scold or "tattle" to his parents. The child should be encouraged to tell the physician:

Why he believes he is in the physician's office.

What his parents have told him about his visit.

What he thinks about the problem presented by the parents.

Does he understand and accept his parents' goals for him.

Does he feel they should go about these differently than they are at the present time.

Does he have suggestions how they might be more effectual in helping him attain their goals.

Are these realistic.

Would he like help in changing himself.

The physician should remember that he can be on the child's side without being against the parents. He is trying to improve the understanding and communication between the child and parents—not referee a contest. When the physician is confronted with the teenage girl's opinion that everyone and the parent's opinion that no one stays out after midnight, he should encourage both to discuss the matter with him rather than make their decisions for them. Any problem serious enough to get to the physician's

office doesn't have a single simple answer. Over-identification with either will become a handicap to successful therapy. The physician should be an understanding adult talking with, not to, a troubled adult or child. The parent is uncomfortable when condescendingly treated as a child. The child is uncomfortable when he is treated as an adult and confused when the physician behaves like a child. In developing his child interviewing technique, the physician should start by being his unaffected self and observing what effect this seems to have on his child patients. He can then improve his technique by emphasizing those parts of his manner which seem to put children at ease, and limiting, as much as possible, those parts which seem to block the child's willingness to communicate with him. A physician might observe that his warm interested facial expression and gentle slow movements reassure children and seem to encourage them to confide. He may also notice that as he becomes more enthusiastic and begins to talk a great deal himself, the child's communication lessens. He should try to cultivate more listening, less talking, and more communicating with his expressive face and gestures.

The different sources of history will frequently disclose discrepancies, but it is rarely wise to confront one member of a family with something another has said. It tends to increase the patient's distrust of the confidentiality of what he is discussing. Rather, one should look for the reasons for the patient's discomfort in reporting the real events, and try to help him with this discomfort. When a child denies the bedwetting his parents have already exposed, the physician can talk to the child about how hard it is to talk about things for which one might feel ashamed.

The history is not a "once for all" matter. It will be added to, changed, reversed, denied, and thereby grow each time the physician sees the child or his parents. However, after the initial history, the physician's routine physical, laboratory, and x-ray studies are always in order. Even though an organic pathological process may not produce the presenting symp-

toms, physical disease may aggravate or precipitate an emotional conflict between the child and his parents. Physical disease places additional or new handicaps upon one's social adjustment. Unless the treatment is too frightening or frustrating, correction of the physical handicap is usually helpful in improving the child's social adjustment. A mild conflict about school performance can be markedly aggravated by faulty hearing or by absenteeism due to repeated respiratory infections. Help is then needed for both the physical and the school performance attitudes.

Psychological evaluation of a child's intelligence is warranted when the physician has questions in this area, but other psychological studies should not be undertaken unless a complete specialist evaluation is being requested. An IQ score alone is at best useless and may put the physician in the position of making erroneous diagnoses, explanations and predictions to parents. An adequate report discusses the current functioning level, potential level and possible etiological factors. The child who is failing in school because of anxiety may score the same low IQ as a mentally deficient child, but their patterns of successes and failures on test items may be quite different. When this difference is recognized, the appropriate management will make for a markedly different prognosis.

This total examination will be pointless to the general practitioner unless he can now utilize this information to help his patient. In generalities, let us look at some of the things he can do:

A good start is to compliment the parents and child on those things they are doing fairly well. If one tries, he can always find that something is realistically deserving of praise.

Next the physician should try to allay the sense of guilt about things for which the child and parents feel ashamed. He can do this by reassurance that he understands that his patients didn't intend to do the "wrong" things they feel they have done. He should not look for or judge blame. He can focus

on future plans for improvement rather than dwell on past failures.

He should pick up some of the patient's ideas that seem to be going in the direction of their goals and try to strengthen these by encouraging the frequency and consistency of their occurrence.

Cautiously and as painlessly as possible, he should begin to help them arrive at the conclusion that certain of their methods cannot possibly attain the goals they seek.

Parents should be given very simple and broad based suggestions which the physician feels they can and will accept. These are frequently enlargements of their own ideas. It helps to point out this similarity. When these work, patients are receptive to more specific and less familiar suggestions.

The child, in particular, should be helped to feel that he is understood and his ideas acceptable even though the physician doesn't help him implement them. The physician can't take the parents' place. His goal is to stimulate sufficient maturity to allow the child to function more effectively.

The child should be gradually helped to see and accept the real limitations of his environment, his parents and himself so he can focus on taking advantage of his assets rather than struggling with his liabilities.

The physician need not feel there are tabooed topics which he cannot discuss with his patients. When the physician really feels and then conveys to his patients that his inquiries are to help them—not just to satisfy his own personal or professional curiosity, the patient will, in time, discuss almost everything which is consciously available to him.

There are some common pitfalls which could be mentioned:

Stirring-up guilt will usually aggravate the patient's symptoms or may even chase him away from the physician. When the physician accuses the child, who is partly aware that he is exaggerating his stomach-ache because he hasn't done his home work, the real pain increases.

Lecturing to parents or children rarely produces changes in the direction the physician wishes. Most of this "good" advice has been thought of previously. The patient comes requesting help in understanding why he can't function correctly, rather than what is correct function. The obese teenager has recently read more frequently about diets and calories than the physician. He needs help in understanding why he can't use what he intellectually knows. Rather than just pass out dietary information, the physician must also help his patient understand how he uses food.

Arranging bargains with the child or between child and parents is risky. To suggest that the teenager be allowed to use the car more frequently in exchange for studying harder will usually backfire. Both sides have usually made compromises they did not wish and will be looking for an excuse to increase their own demands or to cut their concessions. Encouraging them to try plans of their own while questioning some of the details is more likely to succeed.

Scolding usually aggravates the patient's symptoms. It is frequently a sign that the physician has become angry. His patient's not getting well has increased the physician's doubts that he understands what he is doing. It is disquieting to see the same patient time after time for the same symptom. When the patient seems to be thwarting the physician's efforts, it is more so. Then multiply this by the physician's doubts that he understands how to help his patient with a psychiatric symptom, and it isn't surprising that he becomes a little angry. However justifiable, anger is not therapeutic. The physician's recognition of its source will help him control it.

Placement of a child in a foster home, relatives' home, boarding school, military school, or residential treatment center because of behavioral problems is usually a decision for which the general practitioner should have specialist consultation. More frequently than not, the old problems are

aggravated or new ones created. The child who destroys objects because he feels unloved in one home carries this doubt with him to the next home.

After an initial period of feeling wanted and behaving "properly," he will begin to doubt. Would he still be loved even if he was "bad"? When he tries to find out, his "badness" eventually causes annoyance, and again "he knows" no one ever really

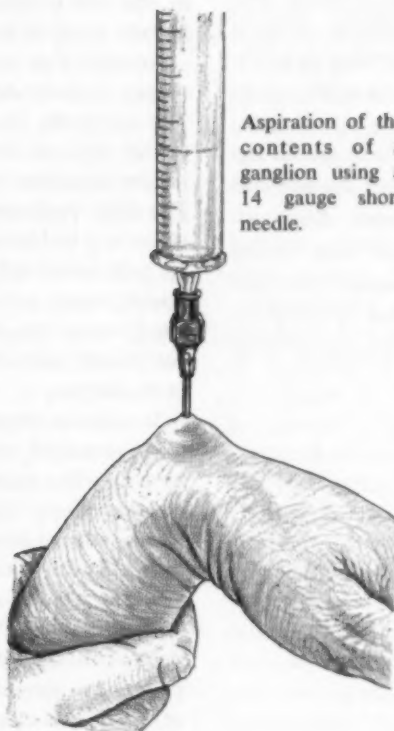
loved him. It is now necessary to move him once more.

Lastly, but certainly not of least importance, the physician cannot transplant his standards for life on most of his patients. He must help his patients clarify and attain theirs—not accept his. At best, he can hope his patients will be willing to examine their own and compare them with their neighbors.

1100 West Michigan Street



CLINI-CLIPPING



Aspiration of the contents of a ganglion using a 14 gauge short needle.

Your Children's Eyes

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The importance of ocular defects in children is not generally recognized, if one is to judge by the number of preventable tragedies that occur. This fact is repeatedly brought home to the oculist who in his daily practice sees children's eyes which are working under a severe handicap and are performing tasks far in excess of their strength. As a result, young eyes are irreparably damaged.

The care of children's eyes is of special significance because at this time of life the eyes are in the process of development. Being vulnerable to fatigue, improper care leaves changes of much greater importance than later in life. If a better understanding of this problem existed, much of the needless loss of visual efficiency could be prevented.

While most of the present day interest is centered around the eyes of school children, very little is said or done about the eyes of the preschool child. It is of far greater importance to focus our attention on the preschool child, because it is at this time in life that the eyes go through their greatest period of development and are most vulnerable. This is the period when vision develops most rapidly and when all interference to development must be eliminated. The eye at this stage is in a plastic state and improper management will cause permanent defects to develop. It is generally recognized that the earlier in life the ocular defect is discovered the better because the sooner corrective measures are instituted the better the result. If a fuller appreciation of this fact existed, more would be done to prevent needless loss of ocular efficiency.

Accurate data is not available as to the frequency of ocular defects in the preschool child. The symptoms of ocular defects in the preschool child are frequently obscure. The subjective symptoms may be of little assistance. The child rarely complains of poor vision. His vision may be blurred, he may even see double, yet he'll seldom tell anyone about it because he doesn't know just how clearly he ought to see. Likewise the objective findings are usually not evident unless the defect is pronounced, as in strabismus.

In order to obtain some information related to the preschool child's eyes, the writer selected from his office records one hundred consecutive case-records of children of kindergarten age. It was assumed that the eye defects encountered in this group which was just beginning school would to a fairly accurate degree indicate the type of problems which exist in younger children. This limited number is insufficient to permit an accurate conclusion, but a study of the cases is at least suggestive and serves to emphasize the pertinent facts.

It is of interest to note the source of reference of these children: In sixty-eight instances,

examination was advised by the school nurse; in fifteen by the family physician; in eight the oculist recommended an examination because of a hereditary tendency in the family and in only nine of these children the parents observed symptoms that suggested the need for eye examination.

An analysis of this group showed the following conditions which indicated the need for eye care:

Visual defect in one or both eyes.

Strabismus. (Cross-Eye)

Subjective symptoms such as blurring of vision, dizziness, headache, nausea, sensitivity to light.

Objective symptoms such as holding a book or a small object close to the eyes; rubbing the eyes frequently; frowning; difficulty in reading or in other work requiring close use of the eyes; closing one eye; tilting the head when looking at a near or distant object; blinking more than usual; crying often; showing nervous irritability when doing close work; stumbling over small objects; evidence of local irritation such as lid irritation, sties and watering eyes.

In this group of one hundred patients, refractive errors made up the greatest percentage of ocular defects. In eighty-six, a significant refractive error was present. There were eight instances of myopia (near-sighted) of slight or greater degree; a significant degree of hyperopia (far-sighted) was present in sixty children; astigmatism of significant degree in forty-eight; anisometropia (an appreciable difference in the degree of refractive error in the eyes) in sixteen.

Myopia (Near-Sighted)

Of the refractive errors, the most difficult one to contend with is myopia. Myopia of even slight degree in a young child is significant because the tendency to increase in amount is greater in the young and effort to protect the eyes from strain at this time is

especially important.

Myopia may be divided into two groups, namely, *congenital* and *acquired*. Congenital myopia is present at birth. It is believed that these eyes have a normal structure but due to an excessive corneal or lens refraction, a high myopic glass is required. There is no real evidence to show that the eyeball is unusually stretched. As a whole, very little restriction is placed on a child with this type of myopia because they do not tend to progress in amount to any appreciable degree.

In acquired myopia on the other hand, the child usually has a small amount of hyperopia up to the age of seven to fourteen years-of-age at which time myopia appears. Most of these cases show an increase in the amount of myopia up through the teens and then level off in the upper teens.

The cause of acquired myopia is not known. There is undoubtedly a hereditary factor present in a high percent of cases. Some authorities believe that myopic eyes do not have certain elements which normal eyes possess. As the result, the eyeball stretches during the growing period and especially if used excessively at near.

Occasionally myopia of this type suffers structural damage due to excessive elongation of the eyeball in which the retina (nerve element in the eye) is stretched to a point where its function is impaired. This is referred to as malignant myopia. In this type of myopia the various resulting changes in the eyes, such as atrophy of the retina and choroid, or detachment of the retina, may bring blindness in later life.

The management of the myopic patient presents certain problems. The congenital type is usually not difficult to manage. Glasses are prescribed as early as possible to permit visual development. As a rule, the use of the eyes is not restricted to any degree. In the instance of the acquired myopia, opinion varies as to the procedure. Although some authorities do

That we have not attained a higher degree of efficiency in the care of children's eyes is evidenced by statistics. The most recent statistics upon which the percentage of children needing eye care can be based are found in the results of the research conducted in St. Louis in 1948-49 jointly by the National Society for the Prevention of Blindness and the U. S. Children's Bureau. This survey indicated twenty-seven percent of the children tested were found in need of eye care. These findings conform with conclusions arrived at by other investigations.

not restrict the use of the eyes in these children unless their myopia has progressed to a rather high degree, others believe that restricting the excessive use of the eyes is necessary.

The myopic child as a rule tends to use his eyes excessively. He is usually a good student and is assigned extra reading to keep him busy. He is especially fully occupied with extra-curricular activities such as music, building airplanes, etc., all of which throws extra strain on his eyes. It is believed that this excessive use tends to accelerate the rate of increase of the myopia.

In addition to restricting the use of the eyes it is important that the general health is maintained at a high level. Fatigue, glare, and other factors must be considered in addition to properly fitted glasses. In the malignant form of myopia, greater care is necessary. The use of the eyes should be restricted and in severe cases the child should be put in a sight-saving class. Sudden blows or falls should be avoided because of the danger of detached retina. Opinion varies as to the use of bifocals and under-correction in myopia. Good authority believes that such practice is not beneficial and does harm by creating a disturbance in the accommodative mechanism of the eye.

It is important to stress that early examination of the eye may reveal a tendency to myopia before it is actually present. This step is especially important in children of myopic parents or if another child in the family has

myopia. Limiting the use of the eyes in such a child may put off the day when the eye becomes myopic.

Hyperopia (Far-Sighted)

Contrasted with the myopic eye is the hyperopic eye. The youngsters having hyperopia usually read normally when tested. A common error concerning hyperopic eyes is, that if the child can see clearly, it is assumed that his eyes are normal and fit for school work without glasses. Hyperopia, even of high degree, usually allows clear vision at near and distant points, but to do this the eyes must make an extra effort.

Unfortunately some parents misconstrue the school nurse's visual report. They frequently conclude that a 20/20 report made by the nurse or teacher means all is well, and thus they have a false sense of security. A note from the nurse telling that a child has passed a test should not be sent home. Reports from the nurse should be only of non-passing and should not give information other than that.

The child, with hyperopia may have symptoms of eyestrain such as nervousness, early fatigue, headache, red eyes and many times are considered backward pupils. Uncorrected hyperopia is often the cause of distaste for reading and other school work. These youngsters become discouraged with school work and often their personalities become warped.

A child does not want to be punished by eyestrain and he avoids instinctively those sensations which are unpleasant. This may cause his entire education to be a failure, but it does save his eyes and nervous system from harm. If the instinct is the only safeguard afforded, nature falls back on it even at the cost of sacrificing educational opportunities. The boy who will not study is sometimes nearer right than are parents or school authorities who will not have his eyes examined to see if glasses are needed.

Amblyopia (partially developed vision) is usually present in hyperopia when it is associated with a high degree of astigmatism, and

especially if anisometropia (error greater in one eye) is present. The presence of amblyopia is significant because if amblyopia is not treated by the time the child reaches four or five years of age, the vision will permanently remain partially developed. Since amblyopia begins in infancy, it is important that treatment is started early.

It is important, therefore, for the child to have his eyes tested early in life to make sure that he is not starting life with an impossible handicap that can result in permanent physical damage to the eyes, an ineradicable distaste for school and a fixed idea of mental inferiority. Contrary to the belief of many, glasses are not always prescribed when the child is examined. Many times the symptoms which suggest eye-strain may be caused by some other condition. It is commonly thought that glasses cannot be fitted before the child is several years of age. This is not the case, and it is not uncommon to fit glasses to children under one year of age. This, of course, is done only when the error is large or there is an appreciable difference in the error in the two eyes. When the high degree of error, which is present in cases of this type, is corrected properly the eyes develop normally, whereas without the glasses partial vision would have resulted.

Strabismus (Cross-Eye)

Strabismus was present in twenty-nine of the one hundred cases studied. Seventeen had been previously treated; twelve had not.

Three well-established facts concerning strabismus should be emphasized; that treatment should be started the moment strabismus is recognized, even though the child is less than one year of age; that in a high percentage of children, crossed-eyes can be straightened by means of proper correction of refractive errors and in some cases with orthoptic training; and, most important, that the neglected crosseyed child loses vision in the deviating eye unless measures are taken to correct the defect during the preschool age.

This loss of vision in the deviating eye is referred to as amblyopia and results from in-

Another important fact is that up to a few years ago even simple eye-sight tests were given to less than seventeen percent of the children enrolled in school. Even at the present time the percentage of children receiving this single test is low, especially in the rural areas where practically nothing is being done concerning visual checks. These statistics are impressive and drive home the importance of the problem of conserving vision in children.

voluntary suppression or inhibition of vision to prevent diplopia. If treatment can be started at an early age, this amblyopia can usually be prevented, or vision can be reclaimed by proper treatment. After the age of six vision once lost is rarely regained. This constitutes the largest single group in which there exists serious impairment of vision in one eye.

In strabismus preventive measures are of great value. It is a fallacy that crosseye is outgrown. During the early years these cases should have prompt attention and careful supervision to help the turned eye develop normal vision. Later on, when the child reaches school age, fusion exercises can be given to create the desire in the brain for the eyes to work together. Glasses do not correct strabismus in all cases because a certain percentage is caused by mechanical difficulty, such as a developmental defect. In this group surgery is usually indicated and should be performed at an early age. Surgery is usually necessary in neglected cases of long standing where a refractive error is the basic cause. However, when the refractive error in such cases is corrected early, surgery is usually not necessary.

Although the partially seeing eye may be straightened by surgical intervention, the child continues to use only one eye in seeing. This partial blindness is far more serious than commonly believed. For example, in various forms of strenuous athletics during boyhood, the possibility of injury to the useful eye is a real hazard. The danger may be less during

A reliable authority states that there are over five million children attending the elementary schools in the United States who have eye defects. Other estimates show that approximately two million school children are retarded in their studies because of their eyes. The cost to the American public school system because of this neglect is about 130 million dollars annually.

active adult life, although a person with this defect is usually discriminated against when seeking industrial employment.

It is remarkable how many parents of children who have strabismus bring them for examination only when they attain school age or for esthetic reasons. These parents apparently have the impression that treatment is unnecessary and without prospect of benefit until the child is ready for school. When informed that the deviating eye has defective vision they express great surprise and not infrequently resentment against earlier advice they have obtained. Latent muscle defects were present in sixteen of the patients. These muscle problems are not evident on casual examination and are revealed only by careful testing. They are a potent cause of eyestrain. Early care relieves the developing ocular apparatus of a handicap and permits a normal development with elimination of symptoms of eyestrain.

Visual Acuity Testing

A visual test should be made on the child as early as possible. In the first few months of life, an accurate estimate of the vision is not possible. The child normally will be attracted by a point of light and when this occurs one can assume that vision is present to some degree. Following this early period up to one year, visual acuity can be roughly estimated by the child's desire to reach for an object held by the examiner. These objects can vary in size and distance. In the one to two year old child, visual acuity can be estimated by having

him pick up objects such as marbles set on the floor at varying distances. In the two to three year old, a test of visual acuity can be made by having the child name a familiar article held at varying distances — small toy, button, coin, safety pin, etc. In testing the vision of the three and four year old, a circular card can be used on which there is a simple symbol such as a hand. In this test, the child indicates with his hand the position of the hand which is drawn on a circular card held at his maximum seeing distance placed in different directions and using one eye at a time. (Such a card can be made by the parent and consists of an outline of a hand one inch long which is drawn and filled in on a circular piece of white cardboard 6 inches in diameter). In the child five to six years of age, the symbol "E" chart gives satisfactory results. The Snellen Chart can be used with most seven-year olds.

Such tests give an approximate idea of the vision and, more important, a comparison of the vision of the two eyes.

Conditions to Avoid

OCULAR FATIGUE: An important consideration in the conservation of vision in children is the avoidance of ocular fatigue. The child's eyes should not be used at close range to any extent compared to the adult. Such strains as television, movies, prolonged reading, or drawing cause fatigue and should be limited. In early childhood, when the object looked at is not interesting, the child looks at something else; when he has looked until his eyes began to feel tired or uncomfortable, he stops looking. He looks when he pleases and at what he pleases, and as long or as short a time as he wishes.

When the child starts school, the eyes are put to a greater strain. Education puts the eyes to work and keeps them at one job until it is done, even if the eyes are tired. It would be much better for all children's eyes if they started school at the age of seven or even at eight years instead of five years when the eyes are in a very immature stage of development

and when the eyes are not equal to the tasks assigned to them. The working hours of eyes have a tendency to lengthen instead of shorten as the child grows older. This frequently results in ocular fatigue, and much harm can be done not only to the young eyes but also to the nervous system. It is, therefore, necessary to see that the conditions for eye work of children are good, the school hours not too long, and the work interesting. In this way, many factors causing ocular fatigue in the child will be eliminated.

ILLUMINATION AND GLARE: Another important consideration in the prevention of eye defects in the child is proper illumination and elimination of glare. This problem begins at the very earliest time in life. With the newborn child one must remember that the room should not be kept too dark as good illumination is necessary to stimulate visual development. Likewise, light which is too bright is actually harmful.

In a preschool child, the parents should see that the child uses his eyes under proper illumination. The child who is cutting pictures in a darkened room is using his eyes under unfavorable conditions.

The problem of light in the school room is of vital importance, and fortunately school rooms are usually well and properly illuminated. Home conditions, also, should be watched. Authorities estimate that a light which gives ten candle of illumination is the minimum lighting advisable. Illumination should not be excessive as it is just as harmful to have excessive light as insufficient light. Illumination can be checked by the local electric company and their recommendations are usually valuable.

Proper lighting is especially important when the child is ill or recuperating from an illness. At this time the eyes, like the rest of the body, should be at rest. In many instances, unfortunately, the sick child lying in bed amuses himself with toys, drawing, or reading, and as a result frequently strains his eyes.

OCULAR ACCIDENTS: Another important consideration in conservation of vision is ocular accident. It is rare for an eye to be injured as the result of a broken spectacle, providing the frame is in good condition. Shatterproof glasses eliminate much of the danger and should be given when glasses are prescribed. Every oculist can enumerate case after case of avoidable accidents to the eye. In most instances it is traced to a toy or an explosion. The air rifle and fireworks should be thoroughly eradicated.

Even the most trivial accidents may bring serious eye trouble if infection develops and in certain types of injuries the other eye may become seriously involved. Parents should give consideration to these possibilities when they select their children's toys.

Heredity

It is generally recognized that heredity is an important factor in many eye conditions. When parents have eye defects, or have one child with an eye defect, there is a strong suggestion that other members of the family may have eye defects. All parents, particularly if one of them has an ocular defect, should have their children's eyes watched closely at an early period in life. This period offers the best opportunity to promote maximum ocular efficiency.

Conclusions

Ocular defects in children are not exclusively the eye doctor's problem. They are also the responsibility of the family physician and the parents and their cooperation with the eye doctor is essential in order to cope with the problem.

Statistics show that the eyes are neglected and abused more than any other organ in the body

and are often permitted to go without treatment or help of any kind. Most of us take our children's eyesight for granted and never think of it as the greatest of our personal treasures which should be guarded constantly. Like their minds and bodies, the eyes of a child are in the process of developing and their health must be safeguarded. We cannot expect immature

eyes to perform the work of mature eyes, or to work under handicaps without the mechanism becoming impaired. On no other organ in the human body hangs so delicately the thread of happiness as on the eyes, yet no organ is more active or restless. From early infancy to death, through all waking hours, they function ceaselessly. Considering that ninety percent of our vast knowledge of the eye has developed in the past fifty years, there is much to be hoped for in the prevention of blindness and the saving of sight.

After many years of experience in dealing with this problem, the writer is convinced that the ultimate solution is to have every child,

when he reaches the age of two years, screened by an eye specialist. Such a screening is a highly technical procedure and calls for a background of special experience. A screening does not involve an extensive examination because a few tests will usually reveal the status of the eyes. If the screening indicates the presence of a defect, more detailed testing can be done. Under this routine, ocular defects can be detected and treated at the time the greatest development of the eyes occurs; and thus can prevent the irreparable damage that results when bad habits become firmly established.

1921 Medical Arts Building



VARICOSE VEINS IN PREGNANCY

"Studies on certain varicosities in pregnancy indicate that there is an arteriovenous fistula in these areas, which is manifested clinically by warm, tender angiectasis and becomes symptomatic with change of position. Oxygen saturation studies indicate a significant increase in arterial blood in these areas as contrasted with venous blood of the opposite leg or the upper extremities. Administration of stilbestrol results in improvement of symptoms. The same symptoms occur premenstrually in women who have had warm varicosities for a long time and are ameliorated by administration of stilbestrol. Further studies are in progress."

JOHN C. WEED, M.D. and HURST B. HATCH, Jr., M.D.
Am. J. of Obstet. and Gynec. (1959) Vol. 77, No. 5, P. 1134

Pruritic Dermatoses

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Oral treatment of
pruritic dermatoses
with Dexamethasone

Continued experimentation with the molecular structure of corticosteroids has produced improvements of major clinical significance. Although we have had good results with prednisone and antihistamines in the treatment of pruritic dermatoses,¹⁻³ the reported advantages of Deronil® (dexamethasone) warranted a clinical trial in this indication.*

Deronil is 9- α -fluoro, 16- α -methyl prednisolone. The indications for Deronil are the same as those for prednisone or prednisolone but its anti-inflammatory activity on a milligram-for-milligram basis is at least six times greater than that of the older analogues.⁴⁻⁷ The effectiveness of dexamethasone at low dosage has made possible a reduction of steroid side reactions.^{8, 9} Weight gain due to increased appetite rather than to fluid retention has been reported.¹⁰

Materials and Method

Dexamethasone was used in a series of thirty males and forty-six females, ranging in age from ten to seventy-four years, with pruritic dermatoses (Table 1). Other types of therapy had been administered to forty-four of these patients, usually by other physicians, with generally unsatisfactory results. Patients with hypertension, peptic ulcer, diabetes, or other contraindications to corticosteroid therapy were excluded from this series.

Each tablet of Deronil, grooved for fractional dosage, contains 0.75 mgm. dexametha-

sone. In seven patients with severe pruritus the initial dose was four tablets daily postprandially and before retiring; thirty-eight patients were started on three tablets daily; and thirty-one patients were started on two tablets daily with intramuscular injections of 10 mgms. Chlor - Trimeton® (chlorprophenpyridamine maleate) each week. The latter regimen was used in cases with an allergic component in an attempt to minimize dosage of the steroid. The two children, both aged ten years, received two tablets daily initially and the weekly injection of antihistamine.

Dosage was reduced by one-half tablet daily until, as the condition improved, the usual maintenance or withdrawal regimen of one-half tablet daily or every other day was reached.

Most patients also received some type of topical therapy in Aquaphor® ointment (Table 1). Those with exudative lesions were advised to apply wet dressings of mild boric acid solution. Mineral oil or a soap substitute (Lowila Cake®) was recommended for cleansing. Diets were modified to exclude known allergens.

In addition to objective clinical evaluation, we questioned patients about the effectiveness of the tablets, especially in comparison to any other drugs used previously. Urinalyses and

Dr. Lackenbacher is attending Dermatologist, Columbus Hospital and Frank Cuneo Hospital.

* Deronil was provided for this study by George Babcock, Jr., M.D. of the Division of Clinical Research, Schering Corporation, Bloomfield, New Jersey.

TABLE 1 INDICATIONS AND DOSAGE

INDICATION	NUMBER OF PATIENTS	DURATION OF THERAPY		REGIMEN		TOPICAL THERAPY
		ONE WEEK	MORE THAN ONE WEEK	DERONIL® ORALLY	DERONIL ORALLY; CHLOR-TRIMETON® PARENTERALLY	
Contact Dermatitis	34	26	8	22	12	boric acid 2% solution 40.0, Aquaphor 40.0 and petrolatum 20.0
Neurodermatitis, Circumscribed	16	14	2	7	9	boric acid 2% solution 40.0, Aquaphor 40.0 and petrolatum 20.0
Neurodermatitis, Disseminata	4	3	1	2	2	boric acid 2% solution 40.0, Aquaphor 40.0 and petrolatum 20.0
Urticaria, Acute or Chronic	4	1	3	2	2	none
Pruritus Universalis and/or Anogenitalis	6	3	3	—	6	boric acid 2% solution 40.0, Aquaphor 40.0 and petrolatum 20.0
Lichen Planus	4	2	2	4	—	boric acid 2% solution 40.0, Aquaphor 40.0 and petrolatum 20.0
Psoriasis	7	5	2	7	—	salicylic acid 2% and sulphur 2% in Aquaphor
Herpes Zoster	1	1	—	1	—	boric acid 2% solution 40.0, Aquaphor 40.0 and petrolatum 20.0
Summary	76	55	21	45	31	

TABLE 2 RESULTS OF THERAPY

INDICATION	NUMBER OF PATIENTS	EFFECT ON PRURITUS		EFFECT ON LESIONS	
		EXCELLENT	SATISFACTORY	SATISFACTORY	UNSATISFACTORY
Contact Dermatitis	34	25	9	29	5
Neurodermatitis, Circumscribed	16	12	4	12	4
Neurodermatitis Disseminata	4	2	2	2	2
Urticaria, Acute or Chronic	4	2	2	3	1
Pruritus Universalis and/or Anogenitalis	6	3	3	4	2
Lichen Planus	4	3	1	4	—
Psoriasis	7	5	2	5	2
Herpes Zoster	1	1	—	1	—
Summary	76	53 (100% satisfactory)	23	60 (79%)	16 (21%)

blood pressure recordings were made regularly.

Complete or nearly complete relief of pruritus was reported by all patients and in sixty patients (seventy-nine percent) there was clinical evidence of major improvement in the lesions (Table 2). In sixteen patients improvement did not occur until a stronger topical ointment was used.

Usually pruritus was relieved during the first week of therapy. Patients reported that sleep was no longer disturbed by itching. With the vicious itch-scratch cycle broken, the lesions healed more rapidly. The antipruritic effect of a single 0.75 mgm. tablet lasted eight to twelve hours.

Objective improvement was observed within one week in fifty-five patients; the remaining twenty-one patients required a longer period on low maintenance dosage before a response was observed.

Patients who received the lower steroid dosage with the antihistamine responded at least as well as those who received higher doses of the steroid alone.

The forty-four patients who had been treated with other drugs reported that results with Deronil were significantly better.

Side effects which sometimes occur with other corticosteroids, such as glycosuria, hypertension, Cushingoid symptoms, muscular weakness, or edema, did not occur with Deronil among our patients. Many reported a sense of increased well-being. Occasionally there was some gain in weight as a result of increased appetite. The following case histories illustrate results of treatment.

A female, 74-years-old, had a long history of disseminated psoriasis involving the entire body. Many types of treatment had been tried. Recently she had received triamcinolone, 4 mgms. twice daily. In two weeks there was

marked improvement but moon-face occurred. After dosage had been gradually reduced and then discontinued, the psoriasis returned in its most severe form. The entire back was a single plaque and the arms were almost completely covered with scales. The patient was given dexamethasone, one-half tablet twice daily for two weeks and then one-half tablet daily for ten weeks. There was rapid, marked improvement: nearly all of the large plaques and efflorescences disappeared and pruritus stopped. The patient is now being maintained on one-half tablet every other day for prophylaxis. There were no side effects during the three months of dexamethasone administration.

A male, 35-years-old, had severely pruritic hypertrophic lichen planus of the arms and legs. He had been under standard parenteral and oral therapy for more than a year which relieved the pruritus to some extent but had no effect on the lesions. The patient was given two tablets of dexamethasone daily for two weeks, with noteworthy improvement of both the itching and the lesions. Dosage was gradually reduced during the following six weeks to one tablet and then one-half tablet daily. Pruritus is now entirely absent and the papules have involuted. Only dark brown pigmentation remains.

Conclusion

Small doses of Deronil are adequate for dermatologic use and untoward effects are unlikely. Initial doses of two to four tablets (1.5 to 3 mgms.) daily, occasionally in combination with an antihistamine, provide optimal relief in a wide variety of pruritic dermatoses. Administration of one-half tablet once or twice daily or every other day is a desirable maintenance or withdrawal regimen. Improvement is more rapid and more complete than when antihistamines alone are used.

Summary

Deronil® (dexamethasone) was administered in gradually decreased doses to seventy-six patients with pruritic dermatoses. All reported a marked antipruritic effect and the lesions in

most patients responded to the anti-inflammatory action of the drug.

Exudation and other symptoms diminished rapidly.

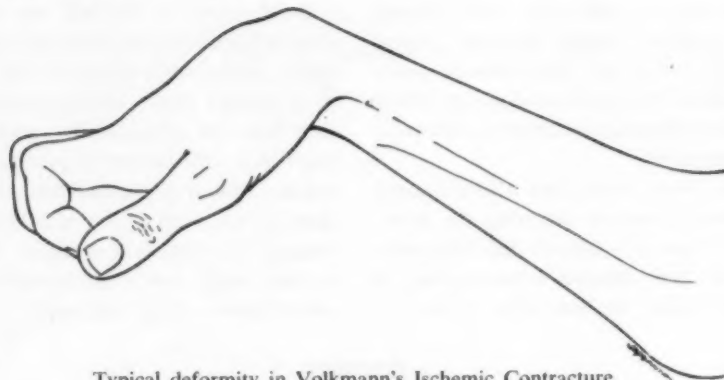
References

1. Leckenbacher, R. S.: Chlor-Trimeton maleate repeat action tablets in the treatment of pruritic dermatoses. *Ann. Allergy* 10:765-769 (November-December) 1952.
2. Leckenbacher, R. S.: Oral and injectable chlorphenpyridamine maleate (Chlor-Trimeton maleate) in the treatment of pruritic dermatoses. *Illinois M. J.* 103:14-15 (July) 1955.
3. Leckenbacher, R. S.: Treatment of pruritic dermatoses with chlorpheniramine maleate and prednisone in combination (Metretan). *Ann. Allergy* 15:409-413 (July-August) 1957.
4. Boland, E. W.: 16- α -methyl corticosteroids. A new series of anti-inflammatory compounds: clinical appraisal of their antirheumatic potencies. *California Med.* 88:417-422 (June) 1958.
5. Bunim, J. J.; Black, R. L.; Lutwak, L.; Peterson, R. E., and Whedon, G. D.: Studies on dexamethasone, a new synthetic steroid, in rheumatoid arthritis. A preliminary report. *Arthritis & Rheumatism* 1:313-331 (August) 1958.
6. Bunim, J. J.: Critical evaluation of synthetic steroids in the treatment of rheumatoid arthritis. *Arch. Interamerican Rheumatology* 1:464-482 (September) 1958.
7. Spies, T. D.; Stone, R. E., and Niedermeier, W.: A note on the therapeutic efficacy of 16- α -methyl-9- α -fluoro-prednisolone (Decadron). *South. M. J.* 51:1066-1067 (August) 1958.
8. Newman, S.; Dorosin, D., and DiRaimondo, V.: evaluation of the metabolic effects of dexamethasone. *Clin. Research* 7:112-113 (January) 1959.
9. Slater, J. D. H.; Heffron, P. F.; Vernet, A., and Nabarro, J. D. N.: Clinical and metabolic effects of dexamethasone. *Lancet* 1:173-177 (January 24) 1959.
10. Boland, E. W.: Clinical observations with 16- α -methyl corticosteroid compounds. *Ann. Rheumat. Dis.* 17:376-382 (December) 1958.

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CLINI-CLIPPING



Typical deformity in Volkmann's Ischemic Contracture.

Diagnostic Methods in Bronchopulmonary Disease

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Confronted with a patient presenting symptoms or signs of bronchopulmonary disease (BPD), the physician is obligated to make as complete a diagnosis as possible at the outset. Medical progress in recent years has expanded the scope of diagnosis in BPD. It serves us well to review from time to time the current array of diagnostic resources available to us.

Taking his cue from the patient's presenting symptoms, the physician should objectively direct his questioning to elicit the details of all symptoms and observations of the patient. As diagnostic studies progress, new clues may develop which will aid in supplementing the history toward narrowing the differential diagnosis. Tedious questioning may be necessary to determine such details as contacts with contagious individuals, occupational exposure, and past illnesses bearing on the present disease. Such minutiae may provide valuable data helping to guide the organization of subsequent diagnostic studies. Serious bronchopulmonary disease may be present with but meager symptoms attributable to it. Such is frequently the case in patients with early tuberculosis, lung cancer, or emphysema, the presence of disease being first recognized by

virtue of a routine roentgenogram of the chest. In some patients, presenting complaints may be misleading so that suspicion is focused on the gastrointestinal, cardiovascular, or central nervous system. A complete physical examination is an essential part of the diagnostic study and perhaps deserves more emphasis than the details of the chest examination itself. Well recognized is the paucity of physical findings in bronchopulmonary diseases.

Repeated chest examinations during the course of clinical observation, however, often provide a composite of helpful diagnostic information. Careful survey of the cardiovascular system may serve to identify bronchopulmonary manifestations as being secondary to heart disease. Pelvic and rectal examinations may disclose malignant disease, pointing to the probability that observed lung lesions are metastatic. The presence of pallor, cyanosis, fever, or skin lesions may indicate the nature and severity of BPD. Intimate relationship with bronchopulmonary lesions may be attributed to suppurative lesions of teeth, tonsils, or sinuses, to an enlarged liver, to abnormal lymph nodes, or to phlebitis in an extremity.

Laboratory Procedures

HEMATOLOGY: The routine complete blood count will be done customarily early in the diagnostic study. Abnormally high hemoglobin, erythrocyte count, and hematocrit are to be

found in diffuse bronchopulmonary lesions which cause chronic hypoxia. Examples include advanced emphysema, pulmonary fibrosis, and cystic disease. Rare causes of secondary polycythemia are pulmonary arteriovenous fistula and primary pulmonary arteriosclerosis. The finding of anemia in bronchopulmonary disease has no specific diagnostic value, but serves on occasion to indicate the severity of systemic effects of the disease or the extent of blood loss due to hemoptysis. Leucocytosis is indicative of suppurative infection, and the degree of left shift is proportional to the intensity of infection.

Leukemia may be attended by pulmonary infiltrations and here the blood findings suggest the explanation for the lung shadows. Eosinophilia is a common finding in Loeffler's syndrome, Hodgkin's disease, asthma, and parasitic involvement.

SPUTUM EXAMINATIONS: The bronchopulmonary secretion should be studied grossly as well as microscopically. Customarily, the patient is instructed to collect an early morning expectorated sputum specimen after brushing the teeth and rinsing the mouth. While this is ideal for cytologic and fungus studies, preferably a twenty-four hour specimen is obtained for culture for tubercle bacilli. Likewise the extended collection best depicts the three-layered sputum of the bronchiectatic patient. Gross examination may prove fruitful in revealing hemoptysis, presence and extent of supuration, or even specific diagnostic characteristics as "prune juice" sputum of lobar pneumonia, foul odor of lung abscess, anchovy-sauce-appearance of amebic abscess, bile stained material of bronchobiliary fistula, or sulfur granules of actinomycosis. The microscopic examination should be objective, guided by the clinical data thus far obtained, in a search for features most likely to provide early diagnosis. If carcinoma is a possibility, Papanicolaou smears should be studied. Bronchial washings are advocated by some when repeated sputum specimens are negative, but they have not proved to be very fruitful. If tuberculosis is suspected, acid fast

stains of concentrated sputum may need to be done repeatedly. Cultures should be planted simultaneously. In modern practice, only cultures are to be relied upon for ultimate diagnosis of tuberculosis and they are necessary for classification of the organism and for sensitivity studies. Microscopic study of unstained sputum is chosen for discovery of certain fungi, of *Entamoeba histolytica*, and of other parasites. In bacterial infections, gram stains reveal the predominant flora.

Cultures should be planted on a variety of media at the outset in an undiagnosed pulmonary infection. Many state laboratories will perform cultural studies on specimens mailed from localities where adequate laboratory facilities are not available. Growth of tubercle bacilli on cultures may appear as early as three weeks but may take as long as ten weeks. Several consecutive daily specimens may have to be planted to be certain an adequate search has been made. If sputum is not obtainable, as in minimal lesions or in children, cultures of gastric contents aspirated in the fasting state should be made. Guinea pig inoculation of sputum or gastric aspirate is seldom necessary but may be employed to establish pathogenicity of acid fast organisms of doubtful identity. Culture of fungi requires special media, the choice of which should rest with the technician experienced in the cultivation of this group of organisms. In some fungous diseases the organisms may be found on examination of discharge from draining sinuses, aspirated abscess contents, pleural fluid, or joint fluid. In pyogenic bronchopulmonary infections, cultures combined with determination of sensitivity to antimicrobials will serve as a guide to specific therapy.

SPECIAL BLOOD EXAMINATIONS: Positive blood cultures may be obtained in acute bacterial pneumonia, a point of prognostic value. They may prove to be a valuable diagnostic clue in septic infarction of the lungs due to right-sided endocarditis or suppurative thrombophlebitis. For some fungous diseases, serum precipitin or complement fixation tests are available. Rising titers have diagnostic

and prognostic significance. The same applies to certain viral and rickettsial diseases with bronchopulmonary involvement.

SKIN TESTS: In bronchopulmonary diseases of allergic origin, skin tests with a variety of antigens aid in identifying the offending allergens. The tuberculin test has limited but sometimes paramount value. Mostly widely employed today is intermediate strength PPD (.0002 mgms.) tuberculin, 0.1 cc intradermally. In the patient with an active pulmonary lesion of unknown cause, a negative tuberculin test rules out tuberculosis as a cause. Rarely, a false-negative test may be obtained in fulminating tuberculosis. A positive tuberculin test means that the reactor either has active tuberculosis or did have it in the past. Bacteriologic proof remains the ultimate criterion for a diagnosis of active tuberculosis. Commercially available skin test antigens of pathogenic fungi include histoplasmin, coccidioidin, and blastomycin. Interpretation of skin response to these antigens is analogous that of the tuberculin response.

Roentgenographic Procedures

Roentgenographic examination contributes much to the characterization of a case of bronchopulmonary disease. Although rarely diagnostic alone, simple x-ray films of the chest may augment other clinical data to the point of a complete diagnosis. In bronchiectasis, the plain chest x-ray conveys little or no information; yet the bronchogram clearly identifies and delineates the disease. Similarity of x-ray appearance of tuberculosis, fungous infection, and many pneumonias demands the correlation of additional clinical data to distinguish among these diseases. Accurate delineation of lesions often depends on special films, supplementing the routine PA and lateral views of the chest. Oblique projections, apicograms (lordotic views), supine and lateral recumbent, and spot films may add much information. Special situations may call for overpenetrated films, Bucky technique, inspiratory versus expiratory films (emphysema, pneumothorax), laminograms, stereo technique, arteriograms,

or bronchograms. Fluoroscopic study of the chest adds valuable information in certain instances. The behavior of abnormal shadows as observed in a series of chest films taken at intervals of days, weeks, or months may reveal diagnostic information which cannot be learned in any other way. Visualization of the esophagus by barium swallow may serve to distinguish between mediastinal lesions of bronchopulmonary origin and those of other origin.

Bronchoscopy

In cases of atypical or obscure bronchopulmonary disease, bronchoscopy should be performed for diagnostic purposes. A specific diagnosis may be forthcoming from direct visualization of endobronchial lesions or from bacteriologic or histologic study of material obtained through the bronchoscope. A diagnosis of bronchogenic cancer is often expedited in suspicious cases by early bronchoscopy. In cases of unexplained hemoptysis, atelectasis, or chronic cough bronchoscopy may be the most fruitful diagnostic effort, revealing such causes as foreign body, granuloma, or bronchostenosis—conditions which x-ray may fail to display.

Thoracentesis

When physical and roentgenologic signs suggest pleural fluid, needle aspiration is indicated to confirm its presence and to provide material for diagnostic study. It is not considered desirable to allow air to replace aspirated fluid. In congestive heart failure, effusion is more common on the right and the fluid has characteristics of a transudate: specific gravity is less than 1.018; protein content is less than 2.5 gms per 100 cc; and there are few or no leucocytes. If these values are higher, the fluid is more likely an exudate, suggestive of an inflammatory process. Grossly bloody fluid may be found in malignancies, tuberculosis, pulmonary infarction, or trauma. Purulent fluid denotes serious underlying lung pathology such as abscess, tuberculosis, or actinomycosis. A bronchopleural fistula may be present. Injection of methylene blue into the pleural

cavity will be followed by expectoration of the dye if such is the case.

If a specific infection is suspected, fluid should be collected in sterile containers for appropriate cultures. Strains of centrifuged sediment should be examined for bacterial types and leucocytes.

Pleural or pulmonary malignancy with effusion is fairly readily identified by Papanicolaou smears of the sediment in the hands of trained individuals.

Biopsy

In many problem cases of bronchopulmonary disease, diagnosis can be expedited by histologic or bacteriologic study of biopsied material. Bronchoscopic biopsy is the time-honored choice method in diagnosis of bronchogenic tumors. It permits simultaneous visualization revealing location and gross characteristics of the tumor, an advantage not shared by cell studies of sputum. Biopsy of the parietal pleura has been found a valuable diagnostic procedure in cases of pleural effusion or thickening. It may be safely performed with the Vim-Silverman needle or other instruments which recently have been devised especially for this purpose. Diffuse pulmonary diseases which defy diagnostic efforts by the usual methods may yield to needle punch biopsy of the lung itself, although the procedure is admittedly risky. Better specimens can be obtained by excision of lung tissue through a small intercostal incision. Biopsy of enlarged supraclavicular lymph nodes may disclose the pathologic nature of underlying lung disease. If no enlarged nodes can be felt one may

excise the prescalene fat pad which often contains small lymph nodes which are involved by the pathologic process in the lungs. Culture and tissue sections of this biopsied material may yield tubercle bacilli, fungi or tumor cells which have reached the lymph nodes from the lung and mediastinum.

Ancillary Studies

Intelligent management of the patient with BPD often requires the determination of various features of the disease state beyond the establishment of a simple diagnosis. In chronic diffuse lung disease (e.g., emphysema, pneumoconiosis), evaluation of the respiratory function has therapeutic and prognostic implications. Many of the larger hospitals have been equipped with pulmonary function laboratories which can provide quantitative data regarding the degree of respiratory impairment. Various aspects of ventilation can be analyzed, gas exchange can be studied, and each lung can be evaluated separately (bronchspirometry). In the surgical treatment of pulmonary tuberculosis, study of pulmonary function has become indispensable.

Cardiovascular studies are often of prime importance in the complete diagnostic picture of a case of BPD. Such studies as venous pressure and circulation time, electrocardiography, cardiac catheterization, and angiocardiology may be necessary in order to delineate the relative roles played by the lungs and the heart in a disease state.

Texas Medical Center
224 Hermann Professional Building



*Dextro-Propoxyphene Hydrochloride
Plus Acetylsalicylic Acid in*

The Control of Painful Rheumatic Disorder

EDWARD SETTEL, M.D.

Brooklyn, New York

The desirability of an analgesic with a pain-relieving efficacy comparable to that of the opium alkaloids, but without the narcotic or addiction-producing properties of the latter, is self-evident. The synthesis of dextro-propoxyphene hydrochloride¹ (Darvon*) appears to contribute substantially towards this goal. The analgesic effect of this agent has been adequately demonstrated both in the experimental animal² and in man.^{3, 4} Gruber⁵ analyzed the results obtained in 101 patients derived from seven cooperating hospitals. The system of study was such that the analgesic effectiveness of dextro-propoxyphene hydrochloride could be compared with the analgesic effectiveness of identical doses of codeine phosphate, with overall results being controlled by placebo medication. The results indicated that the two active agents in equal doses were equally effective in reducing the discomfort of chronically ill patients. Moreover, dextro-propoxyphene hydrochloride showed less tendency than codeine to produce gastrointestinal side effects and no tendency to produce tolerance calling for progressively increasing dosage.

In an earlier study,⁴ the writer was also able to corroborate the effectiveness of dextro-propoxyphene hydrochloride as an analgesic.

In a total of 70 patients suffering mainly from painful rheumatic disease "excellent" relief of pain was obtained in 38 (54.3%) and "good" relief in an additional 24 (34.3%). Thus, worthwhile improvement was obtained in a total of 88.6%. No evidence of significant toxicity was observed and no patient developed any physical dependence or manifestation of tolerance.

The present double-blind study was conducted mainly in patients with rheumatoid disease. Its primary purpose was to determine whether the addition of dextro-propoxyphene hydrochloride would enhance either in degree or duration the recognized analgesic effectiveness of acetylsalicylic acid.

Materials

Three types of medication were employed.

1. Placebo tablets.
2. Tablets 'A.S.A.' I.R.† Each tablet contained acetylsalicylic acid 325 mg., embodied

* Darvon supplied by Eli Lilly and Company, Indianapolis, Indiana.

† All materials were supplied through the courtesy of J. M. Maas, M.D., Clinical Research Division of Eli Lilly and Company.

TABLE I

Drug	No. of times Administered	Degree of pain at Time of Administration				Degree of pain during action of drug period			
		1	2	3	4	1	2	3	4
Placebo	295	1	8	249	37	6	124	126	39
Aspirin	308	1	16	254	37	90	162	54	2
Aspirin plus Darvon	297	6	16	230	45	161	128	8	0

in a resin-coated core to assure release of the medication in the duodenum. The outer layer of the tablet consisted of an inert conventional coating.

3. Tablets 'A.S.A.' I.R. 325 mg. plus dextro-propoxyphene hydrochloride (Darvon) 20 mg. The tablet was formulated in such manner that the dextro-propoxyphene component was suspended in the outer coating for release in the stomach. The acetylsalicylic acid component was suspended in a resin core to permit passage through the stomach and release in the duodenum.

Methods

The three types of medication were supplied without identification. This was not revealed until the conclusion of the study. Thus, neither physician, nursing staff nor patients could be influenced by the element of suggestion. During the period of study the medication was prescribed only by an arbitrarily chosen numerical designation.

The patients selected for study were mainly in the older-age group and the cause of pain in the majority was the existence of some type of chronic rheumatic disorder. Most were inmates of a well-organized nursing home and were thus subject to regular careful observation. A few were drawn from private practice.

In most patients a dosage of 2 tablets four times daily was employed. Thus, the total daily dosage of salicylate amounted to somewhat more than 2.5 Gm. which is well within the limits customarily employed in rheumatic disease. In a few instances where senility or general debility dictated extra caution, a somewhat lower dosage was employed. A total of

40 subjects was studied in all.

During the course of study individual case records were maintained providing the following data in addition to age, sex, diagnosis and dosage:

1. Degree of pain experienced when medication was administered.
 2. Degree of pain experienced during period of drug activity.
 3. Duration in hours of analgesic activity.
 4. Nature and severity of side reactions.
- In each instance the intensity of pain was rated numerically as follows: 1—no pain; 2—slight pain; 3—moderate pain; 4—severe pain.

Side-reactions were graded as: 1—mild; 2—moderate, and 3—severe.

Where possible, the data obtained were tabulated and subjected to riddit analysis as described by Bross.⁵ Riddits represent a type of transformation, relative to an empirical distribution, between the Chi square and "t" test families of statistical methods. Riddits are of value in biological data not properly belonging to either of these families. It is as safe or safer than other statistical methods, since it is "distribution free" in one sense.

Results

A summary of the results with the three medications in producing analgesia is shown in Table I.

Tables II and III furnish a comparative evaluation of the efficacy of the medications in producing pain relief. It can be readily seen that the pain during the period of drug activity was greatest with the administration of placebo, and least during the administration of acetylsalicylic acid plus dextro-propoxyphene

TABLE II

PAIN AT TIME DRUG GIVEN	ASPIRIN PLUS DARVON	ASPIRIN	PLACEBO	TOTAL
None	6	1	1	8
Minimal	16	16	8	40
Moderate	230	254	249	733
Severe	45	37	37	119
Total	297	308	295	900
Mean Ridit	0.66844	0.66961	0.68060	0.67282

PAIN DURING ACTIVITY

None	161	90	6	257
Minimal	128	162	124	414
Moderate	8	54	126	188
Severe	0	2	39	41
Total	297	308	295	900

Mean Ridit	0.17535	0.28636	0.52259	0.32716
Ridit Change	0.49309	0.38325	0.15801	0.34566

RIDITS

	1	2	3	4	5
None	265	132.5	0	132.5	0.07361
Minimal	454	227	265	492.0	0.27333
Moderate	921	460.5	719	1179.5	0.65527
Severe	160	80	1640	1720.0	0.95556
	1800		1800		

hydrochloride. The latter medication also produced significantly greater change in pain-status than either of the other medications.

Discussion

It is always difficult to establish the relative numerical value which should be applied to such subjective phenomena as estimates of pain intensity. When scores are used the units are completely at the discretion of the investigator. Ridits are based on the frequency at which each category of pain intensity occurs. Therefore, one possible source of bias (the numerical value applied to each category) is at least partially controlled. Since the results with the scores and with the ridits were essentially the same, one may assume that the values given produced no great error.

TABLE III

PAIN DURING ACTIVITY

No pain = 0; slight = 2; moderate = 3; severe = 4

PATIENT #	MEAN SCORES PER PATIENT			
	ASPIRIN PLUS DARVON	ASPIRIN	PLACEBO	TOTAL
1.	0.8	1.8	2.6	5.2
2.	0.9	1.6	2.8	5.2
3.	1.0	1.4	2.4	4.8
4.	1.0	1.8	2.5	5.3
5.	0.3	0.9	2.1	3.3
6.	0.1	1.3	1.9	3.3
7.	0.6	0.9	2.0	3.5
8.	0.6	1.4	2.2	4.2
9.	0.4	0.6	1.8	2.8
10.	0.1	0.5	1.3	1.9
11.	1.0	1.0	1.8	3.8
12.	1.1	1.5	2.5	5.1
13.	0.3	1.1	1.3	2.7
14.	0.2	0.8	1.3	2.3
15.	0.1	0.1	1.0	1.2
16.	0.8	1.0	1.6	3.4
17.	1.0	1.5	1.8	4.3
18.	0.8	1.3	2.5	4.6
19.	0.3	0.3	1.4	2.0
20.	0.3	0.9	1.3	2.5
21.	0.4	1.1	1.3	2.8
22.	0.4	1.2	1.6	3.2
23.	0.8	1.0	1.5	3.3
24.	0.6	1.1	1.7	3.4
25.	0.4	0.5	1.2	2.1
26.	0.5	0.5	1.1	2.1
27.	0.4	0.8	2.6	3.8
28.	0.4	0.4	1.1	1.9
29.	0.6	1.1	1.4	3.1
30.	0.4	0.8	1.1	2.3
31.	0.1	0.5	1.1	1.7
32.	1.0	1.7	2.3	5.0
33.	0.8	0.7	1.3	2.8
34.	0.0	0.5	1.3	1.8
35.	0.5	0.6	1.5	2.6
36.	0.5	0.3	1.3	2.1
37.	0.3	0.9	1.6	2.8
38.	0.3	0.7	1.7	2.7
39.	0.4	0.4	1.3	2.1
40.	0.1	0.4	1.0	1.5
TOTAL	20.6	36.9	67.1	124.6

TABLE IV

PATIENT #	DURATION OF ANALGESIC EFFECT IN HOURS MEAN DURATION PER PATIENT			
	ACETYL- SALICYLIC ACID PLUS DARVON	ACETYL- SALICYLIC ACID	PLACEBO	TOTAL
1.	4.6	3.1	0.7	8.4
2.	4.5	3.1	0.7	8.3
3.	4.0	3.3	1.0	8.3
4.	4.6	3.6	1.0	9.2
5.	4.7	4.1	0.7	9.5
6.	4.2	3.8	0.6	8.6
7.	4.5	3.2	1.2	8.9
8.	3.7	1.8	0.5	6.0
9.	3.5	2.3	0.5	6.3
10.	4.5	3.2	0.7	8.4
11.	4.2	3.0	0.6	7.8
12.	4.1	3.1	0.5	7.7
13.	4.0	2.2	1.2	7.4
14.	4.5	3.2	1.2	8.9
15.	4.2	3.8	1.8	9.8
16.	2.8	2.5	0.3	5.6
17.	1.1	0.5	0.1	1.7
18.	4.6	3.0	0.0	7.6
19.	5.0	3.7	0.7	9.4
20.	3.8	2.8	0.8	7.4
21.	3.8	2.7	0.8	7.3
22.	3.5	3.0	0.8	7.3
23.	4.4	3.2	0.6	8.2
24.	4.5	3.8	1.1	9.4
25.	4.1	2.8	1.8	8.7
26.	4.5	3.8	1.8	10.1
27.	4.2	4.3	0.5	9.0
28.	4.0	4.0	2.1	10.1
29.	3.8	3.1	1.1	8.0
30.	4.1	3.1	0.8	8.0
31.	4.1	3.5	0.7	8.3
32.	4.0	2.5	0.5	7.0
33.	4.4	4.0	1.6	10.0
34.	4.8	3.8	2.3	10.9
35.	4.0	4.3	0.6	8.9
36.	4.3	3.6	1.0	8.9
37.	4.1	3.7	1.0	8.8
38.	4.1	3.6	0.6	8.3
39.	4.2	3.4	1.5	9.1
40.	4.1	3.3	1.5	8.9
TOTAL	164.1	128.8	37.5	330.4
MEAN DURATION IN HOURS	4.102	3.220	0.937	

TABLE V SIDE EFFECTS

	ACETYL- SALICYLIC ACID PLUS DARVON	ACETYL- SALICYLIC ACID	PLACEBO
Mild vertigo	6	8	
Moderate vertigo	1	1	
Mild nausea	5	8	
Moderate nausea	—	1	
Mild gastric distress	1	8	1
Moderate gastric distress	..	1	
Mild constipation	14	2	2
Moderate constipation	5	1	
Mild drowsiness	11	3	
Mild headache	1	2	
Mild emesis	..	1	
Total	44	36	3

The duration of action of any analgesic is clearly of profound importance. As can be seen from Table IV the action of acetylsalicylic acid in combination with dextro-propoxyphene hydrochloride lasted on the average for more than 4 hours while that of acetylsalicylic acid alone more closely approximated 3 hours. The figures in Table III and IV also clearly illustrate the fact that results from patient to patient were remarkably consistent, superior analgesia, both in degree and duration, being found in almost all instances following the combined medication.

Side effects were essentially insignificant and infrequent with all three medications. The lowest incidence was noted with the placebo but even with the medications containing active agents no toxicity of any consequence was seen (Table V). Periodic laboratory controls including hemograms, urinalysis and renal and hepatic profiles also failed to reveal any change as a result of medication.

Summary

(1) A new synthetic non-narcotic analgesic, dextropropoxyphene hydrochloride (Darvon), in combination with acetylsalicylic acid, has been subjected to clinical test in 40 patients

suffering predominantly from chronic rheumatic disorder.

(2) The results indicate that the combination is significantly more effective and longer-lasting in relieving pain than is acetylsalicylic acid alone. The incidence of side-effects from the medication was gratifying low.

(3) The combination of acetylsalicylic acid

with dextropropoxyphene hydrochloride affords effective analgesia in the chronic rheumatic disorders. Its prolonged action, coupled with its relative freedom from undesirable side-actions, make it particularly valuable in the amelioration of chronic arthritic disorders and other conditions in which pain is a prominent feature.

Bibliography

1. Pohland, A., and Sullivan, H. R.: Analgesics: Esters of 4-Dialkylamino-1,2-Diphenyl-2-Butanols. J. Am. Chem. Soc. 75:4458-4465 (Sept. 20) 1953.

2. Robbins, E. B. Pharmacologic Effects of New Analgesics α -4-Dimethylamino-1,2-Diphenyl-3-Methyl-2-Propionyloxybutane. J. Am. Pharm. A. (Scient. Ed.) 44:497-500 (Aug.) 1955.

3. Gruber, C. M. Jr.: Codeine Phosphate, Propoxyphene

Hydrochloride and Placebo. J.A.M.A. 164:966-969 (June 29) 1957.

4. Settel, E.: A Controlled Clinical Evaluation of Dextro-Propoxyphene Hydrochloride Plus Acetylsalicylic Acid. J. Am. Geriatric Soc. VI:818-821, Nov. 1958.

5. Bross, I. J. D. Biometrics 14:18, 1958.

349 Eastern Parkway



Chyle in the Peritoneum

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Chylous fluid may be found at surgical operation in the peritoneal space, or on paracentesis. Such a finding will perhaps disturb the average physician because the experience of any single physician with chylous ascites is usually limited. A survey of the occurrence of chylous fluid in the peritoneal space is presented in this communication in order to provide a better understanding of this problem.

The lymphatic tree is a capillary network which joins the vascular system by means of the thoracic duct and the right lymphatic duct which drain into the subclavian veins at the root of the neck. The lymphatic channels originate in six lymph buds: the paired jugular, the sciatic, a retroperitoneal, and the cisterna chyli. Sprouts from these sites form a continuous capillary network.

The lymphatics return proteins, carry a bulk of the lymphocytes, and transport unsplit fats (most ingested fat is unsplit) to the blood streams. Chyle, the fluid of the lymphatics, is bacteriostatic, sterile, rich in fat and lymphocytes, and odorless. It passes along the abdominal lymphatics to the thoracic duct, aided by the negative sucking action of the chest, the motion of the bowel, the valves of the lymphatic tree, and the pulsations of adjacent arteries. A rate of flow of two hundred cubic centimeters per hour has been recorded.

Intraperitoneal chyle is found under the following circumstances clinically.

1. ACUTE CHYLOUS PERITONITIS—The etiology of this is unknown. A suggestion has been made that the overloading of the chyle system by the ingestion of a heavy fat meal may produce an extravasation of lymph at a weak point in the lymph tree, thus producing chylous peritonitis.* The patient's history is frequently suggestive of an acute, intraabdominal inflammatory process, such as appendicitis or cholecystitis. Nausea, vomiting, a tender abdomen with muscles spasm and rebound tenderness leucocytosis, and a definite lymphopenia may be noted. The latter finding is particularly helpful. The picture is that of acute peritonitis. Abdominal exploration is in order. The chyle resembles purulent fluid, although a smear of such will show absence of bacteria and predominance of lymphocytes. The fluid will rapidly accept any fat stain such as Sudan III. The presence of subserosal engorged lymph plaques should alert the surgeon to the nature of the process. Exploration of the abdomen and removal of most of the fluid is in order. The placing of intraperitoneal drains does not seem to influence the outcome, or rate of

* Madding, G. F., McLaughlin, R. F., and McLaughlin, Jr., R. F.: Acute Chylous Peritonitis, *Annals of Surg.*, 147:419, 1958.

recovery, and the results are uniformly excellent. Reduction of the food intake postoperatively can assist in sealing off the leak and lessening of any obstruction if such temporarily exists.

2. **CHRONIC CHYLOUS PERITONITIS (CHYLOUS ASCITES)** Abdominal distention due to the accumulation of chyle will resemble that of cirrhosis of the liver. Dullness of the abdomen to percussion, and shifting dullness may be found on examination. Esophageal varices rarely are found. A dietary history of the excessive use of alcohol will not be obtained. The causes of the chylous ascites include external abdominal trauma, severe hyperextension, and injury to the spine associated with rupture of the adjacent thoracic duct, which may have been fixed due to previous inflammation.

Neoplastic disease or tuberculous adenitis

may obstruct the cisterna chyli and tributaries producing intraperitoneal chyle. Filariform parasitic infestation may block and damage the ducts of the lymphatic tree.

The lipodystrophy of Whipple's disease may be associated with a markedly thickened mesentery and chyle in the peritoneal cavity. Therapy includes utilization of split-fats products (such as fatty acids) for food, and the nutritional support with soluble vitamins. Repeated paracenteses are sometimes helpful. The fluid tends to reaccumulate after drainage, however.

Surgical repair of the injured thoracic duct has been accomplished when an acute traumatic episode is known to have preceded the development of chylous ascites, or the duct has been successfully ligated proximal and distal to the area of leak.

59 Fremont Street



CLINI-CLIPPING
Infantile Obesity



Palliative Treatment of Hemorrhoids

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Few afflictions of mankind are more disconcerting than the discomfort, distraction and preoccupation produced by anal pain. Hemorrhoids constitute one of the less serious but more incapacitating instances of rectal diseases. Surgical intervention is the only real cure for symptom-producing hemorrhoids. Nonetheless, the role of palliation is important and should not be relegated to the classification of outmoded therapy. It is extremely beneficial in the preoperative and postoperative period, and is the only means of therapy when surgery is contraindicated.

Although, esthetically, palliative methods of today have improved, the fundamental therapeutic principles are the same as those introduced by Hippocrates.¹ No longer is it necessary to "put urine in a bronze vessel, sprinkle upon the urine the flower of bronze calcined

and finely triturated; then, when it is moistened, shake the vessel and dry in the sun. When it becomes dry, let it be scraped down and levigated, and apply with the finger to the part, and having oiled compresses; apply them; and bind with a sponge above." Yet some of the ingredients which Hippocrates recommended for the preparation of a rectal suppository, *i.e.*, the shell of the cuttle fish, plumbago, bitumen, alum, galls, were used to reduce local inflammation and edema and alleviate anal spasm. This, indeed, is the basis of palliation.

There has been medical controversy as to the efficacy of rectal ointments or suppositories in the treatment of hemorrhoids. A clinical study was conducted in the Out Patient Department at the Long Island College Hospital in Brooklyn, New York, and on in-hospital patients using a commercially prepared suppository and a control suppository in an effort to ascertain any therapeutic effect with this mode of therapy. The contents of the suppositories were known only to one physician.

Suppository A* contained benzocaine, 120 mgms., oxyquinoline sulfate, 15 mgms., ephedrine hydrochloride, 4 mgms., zinc oxide, balsam of Peru in a cocoa butter base. Suppository B, the control used in the study, was the same as Suppository A without benzocaine or ephedrine hydrochloride. Suppositories A and B were used on alternate days. There were sixty-five patients studied, selected at random, and the suppositories were used two hundred and twenty times. The relief of pain was the sole criterion employed. The results of the study are summarized in the tables on the following page.

Almost ninety percent of the patients experienced marked relief of pain following the use of suppository A, indicating that the efficacy of the suppository cannot be due solely to its lubricating quality, as there was little benefit from Suppository B. Indeed, the ingredients have a rather specific pharmacological action. There was no instance of any sensitivity reaction to benzocaine.

Benzocaine belongs to the group of local anesthetics that are poorly soluble in water.

From The Department of Internal Medicine, The Long Island College Hospital, Brooklyn, New York.

* Suppository used in this study was Rectal Medicone® supplied by the Medicone Company, 225 Varick Street, New York, New York.

220 INSTANCES OF USE

	Marked Pain Relief	Little Pain Relief	No Difference
A	197	18	5
B	18	197	5

65 CASES

	Marked Pain Relief	Little Pain Relief	No Difference
A	57	3	5
B	3	57	5

This insolubility has the advantage that the drugs are poorly absorbed—thus avoiding any general toxic reaction. In addition, this anesthetic remains localized to the area to which it is applied, affording the utmost efficacy in anesthetic action.

The decongestant action of ephedrine on mucosal membranes through vaso-constriction is an additive factor in allaying pain. Oxyquinoline contributes a strong astringent action.

Zinc oxide also has a mild astringent and antiseptic action. A mild stimulant to healing is provided by balsam of Peru.³

The use of these suppositories extends beyond their use in simple hemorrhoids. In cases of prolapsed or strangulated hemorrhoids the surgical correction would be best served by reducing edema and relieving anal spasm by means of a local anesthetic.³ The mitigation of anal burning associated with diarrhea from intestinal infections or the colitides is most gratefully received by the patient. When surgery is contraindicated in cardiac patients, a therapeutic need is fulfilled by these suppositories. They are useful when surgery must be postponed, for instance, in pregnancy, diabetes, or prostatitis.⁴

When any medication is used, the pitfall of masking serious underlying disease must be avoided. The physician should not provide symptomatic treatment of anal pain or rectal bleeding without initiating a thorough investigation to rule out more serious causes of anal discomfort. In view of this, the avoidance of the use of anesthetic suppositories during such investigation is unwarranted.

Summary

A clinical study was conducted with an analgesic rectal suppository to determine its usefulness for palliation of anal pain. Over 90%

of the patients studied were markedly relieved. No toxic side effects or any sensitivity reactions were noted.

Bibliography

1. Adams, F.: Trans., The Genuine Works of Hippocrates, The Williams and Wilkins Co., Baltimore, 1949.
2. Goodman, L. and Gilman, A.: The Pharmacologic Base of Therapeutics, The MacMillan Co., 1955.
3. Barjen, A.: Rectalgia Associated with Intestinal Dis-

eases. Minnesota Med., Vol. 31, April, 1948.

4. Pope, C.: Current Therapy 1957, W. B. Saunders Co., Philadelphia, 1957.

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DERMATOLOGY

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- FACTS
- FANTASIES
- FALLACIES

Diseases are often classified on a basis of clinical syndromes or concurrent aggregate symptoms. This is especially true of skin diseases. For centuries dermatology was relatively dissociated from internal medicine. Any relationship between the skin and systemic disease was rather vaguely understood and by many, considered coincidental. A century ago dermatology was little more than an objective branch of medicine, consisting of pictures, elaborate descriptions, moulages, atlases, and long Latin names, many of which were, in view of our present conceptions, meaningless if not actually ludicrous. To Willan of England, an astute internist, and his followers should go credit for promulgation of the idea that the skin is physiologically an integral part of the body, dependent for its functions and structural integrity upon the health of the body in the aggregate.

It is difficult to divest ourselves of the concept that many skin diseases are not clinical entities. Nevertheless this is true. When one considers the many factors which can precipitate herpes simplex, hives or eczema, one can readily appreciate the difficulty encountered in determining the etiology of these and many other dermatoses. On the other hand the same causal factor may elicit a wide variety of cutaneous responses.

It is becoming more and more apparent that many dermatoses are merely cutaneous expressions of organic or functional disturbances in the blood, liver, kidneys, cardiovascular, nervous or endocrine systems. When one reflects for a few minutes he will appreciate the basic

causes of disease are actually few. They may be grouped under seven headings, namely: infection, trauma, allergy, involution, deficiency, heredity, or metabolic disturbance. It is not unlikely that infection and the products of infection are responsible for many diseases usually included in the other six categories.

We must appreciate that the skin is the only organ which is so exposed to the eye of the examiner. The astute physician may see in it the clue to some systemic disease before changes are apparent elsewhere or can be detected by any clinico-pathologic method.

"Tis better than riches to scratch when it itches." Nothing will relieve an itch so promptly and with more personal satisfaction than a good scratch. Sometimes it impresses me as being almost sadistic. Certainly the little four lettered Anglo-Saxon word "Itch" is rhetorically and descriptively more appropriate for designating this distressing sensation than the Latin "pruritus."

Stimulation of free nerve endings in the epidermis by chemical, mechanical, or other stimuli is productive of itching. Skin areas denuded of epidermis do not transmit the itch sensation. Therefore the rupture of an itching bulla or excoriation resulting in complete de-epithelization of an urticarial papule will destroy the itch sensation. Heat increases capillary dilatation and makes the nerve endings more sensitive. This explains why cool applications and vasoconstricting agents are helpful in relieving itch.

The sensation of simple itching drives more people to the doctor than any other symptom

referable to the skin. I mean specifically that variety of itching where there is no visible cutaneous lesion to explain it. The causes of this type of pruritus are many and the physician should not fall into the error of belittling the import of this complaint merely because there is no visible reason for it.

Generalized itching may be an indication of a large group of systemic disease: diabetes, hypothyroidism, male or female climacteric, senility, pregnancy, dysmenorrhea, hypertension, arteriosclerosis, constipation, gastric hyp acidity, focal infection, lymphomatous disease (leukemia, Hodgkin's, lymphosarcoma, granuloma fungoides), drug or food allergy, over-indulgence in coffee, tea and condiments, and parasitophobia. While many of these circumstances may be minor and inconsequential, their early detection is sure to result in a grateful patient—or may even result in saving a life.

The dermatologic diagnostician is adept at deductive reasoning. He is capable on inspection of telling the patient how long he has had his eruption, where it started, whether or not it itches, what it is caused by, what the patient has done for it, and with what result; but probably cannot give the patient the remotest idea how long it will be before he gets well. Proficiency in diagnosis, therefore, depends primarily upon the ability of the examiner to appreciate what he sees and explain it in view of what he has seen before. In order to make a logical interpretation, he must make use of his knowledge of each and every branch of internal medicine. No other organ is exposed to environmental insult as is the skin; nor so intimately related both anatomically and functionally to other organs. A comprehensive knowledge of internal medicine and biochemistry is, therefore, a prerequisite.

As in other specialties, there are many facets to dermatology. To be a good dermatologist one must be a mucologist, physiotherapist, histopathologist, therapist, and above all, a good physician.

At the present time one of the most important aspects of dermatology is the subject of

contact dermatitis. There are two types; one which is due to irritation and the other due to a definite sensitivity. The irritative type of dermatitis is easily diagnosed. The allergic type however may pose a difficult problem which at times requires extreme astuteness. Depending on the area of involvement one must consider all the possible things that come in contact with that area during the average day.

Skin disease accounts for sixty to eighty percent of all industrial disease; ten percent of all disabilities during World War II was due to diseases of the skin. Cancer of the skin is more common than of any other organ, another reason for the importance of this specialty in the field of medicine.

There are many popular misconceptions concerning the skin. Some have been accepted without question from patent medicine ads, or that sometime diagnostician and therapist, the corner druggist. Some have been handed down from generation to generation and are pure and simple "Old Wives' Tales." Still others are due to improper counseling on the part of the physician.

You have probably heard this statement over and over, "*People with skin diseases are never cured and never die.*" This is untrue. Most are cured. However some may have recurrences ten, fifteen or twenty years later. There are many general diseases that are not cured, such as the common cold, arthritis, heart trouble, poliomyelitis and leukemias. Among the fatal dermatoses are mycosis fungoides, pemphigus, melanomas, lymphoblastoma, lupus erythematosus disseminatus, Kaposi's hemorrhagic sarcoma.

That skin diseases are very contagious is a widespread and mistaken belief. The reason for this—lesions are visible and offend the esthetic taste. Skin diseases have also been associated with venereal disease, filth and infestation.

Of the *ten most common* skin diseases none are communicable except ringworm. Those easily transmissible are impetigo, pediculosis, scabies and tinea capitis.

It is a fallacy that benefit from the sun's

rays depends on the length of exposure and amount of tan . . . that one cannot get too much sun . . . sun is the source of life, without it all is cold and there would be no life as we know it.

Vitamin D is obtained mostly from fish and animal liver and fats. How do we get vitamin D from foods and sun? How do fish in depths of the ocean get it? Plankton, myriads of micro-organisms, found on the surface of the ocean absorb vitamin D as a blotter does ink. These lowly forms of plant and animal life occur in vast multitudes. Often the surface of water is colored by plankton as is the case of redness of the Red Sea. Small fish eat plankton and so on, ad infinitum.

Man, being an animal and not a tree, does not require prolonged exposure to the sun for proper health. The best proofs are the Eskimo with six months' light (no carious teeth, no colds, no pneumonia, no rickets, no scurvy). The health of miners and motormen of subways is as good as that of any other group. Infants require some sun but adults do not.

In fact the tan is actually a protective measure and for that reason pediatricians do not allow infants to tan. The blood is not affected in any way by exposure quantitatively or qualitatively to sunlight. The *beneficial* feeling that one gets is due to contact of air with the skin, relaxation, and loss of volatile excreta through sweat glands. The *bad* effects of overexposure to sun can be acute or chronic; acute—death; chronic—permanent pigmentation, keratoses, thickening of the skin, telangiectasia, dryness, cancer. Spaniards, masters at the art of taking the sun, say, "In February the dog seeks shade." "Only mad dogs and Englishmen walk in the midday sun." Instinctively, white-skinned animals shun exposure to the sun. Most tropical animals go out at night. Mosquitoes, sand flies, white ants are killed by tropical sun.

There are many fallacies concerning hair growth and baldness that have been recounted over the years. First of all I will briefly discuss hair and debunk the fallacies. Hair is characteristic of all mammals; in man it is mostly vestigial. It is a protection against

physical and chemical trauma, intense heat, cold and actinic rays, especially for hunters, sailors and soldiers.

Pliocene and Miocene man were extremely hairy creatures. At present we have only the vestigial hair known as lanugo hair. Beards are also vestigial. Plains-living Indians and Mongols have no beards. The scalp has 3500-5000 hairs per square inch (120,000) scalp. There are more in blondes, least in red heads. There are racial differences also. The Chinese have the straightest, the Japanese the longest, the Negroes, Tasmanians and Australians have the bushiest hair.

Hair does not grow from the root or hair follicle but does receive its nourishment from it. Growth, coarseness or quantity of hair is not influenced by shaving or cutting.

Hair tonics (hair food) are of no value except to dress hair, which cannot be fed by external applications. Friction and medications that cause reddening of the scalp are helpful. Cold cream and lanolin have no effect. Sunlight does not make hair grow. Hair does not grow after death; that it appears to is merely the result of contraction of skin toward the roots. Singeing of hair is not beneficial. The supposed reason for singeing was to seal open ends and prevent loss of nutritive fluids. Hair is a sealed hollow tube and singeing only makes it brittle.

That baldness, highbrow (M type) or Hippocratic baldness is due to tight hats, sedentary life, or too frequent washing is not true. It is due to sexual inheritance confined mainly to men. It is purely an hereditary trait, dominant in men and recessive in women. The Negro is ten times less likely to be bald than the white.

One can retard or check loss of hair but not regrow it. The "before and after" pictures seen in advertisements in daily newspapers are not the result of therapy. Following serious illnesses, erysipelas, influenza, nervous shock, infections, alopecia areata, there may be a temporary loss of hair but the hair will grow back.

The best remedy for baldness—

1. Change your ancestors.

2. Change your sex (female hormone).

3. Endure it.

Dandruff due to excessive oiliness may cause baldness. Many persons however, have been known to be afflicted with dandruff for many years without any appreciable loss of hair. The simple scale that is often misconstrued as dandruff may be the result of reaction of hard water and soap forming a calcium soap and may be treated successfully by using detergents in hard water areas. That frequent washing of hair will cause baldness is not true. Frequent washing will not "cure" oily skin or hair. *Face creams and hair*—There is no face cream nor any oil or fat which can possibly cause the growth of hair on the face or anywhere else. *Eyelashes*—No preparation can promote growth or make them look longer or silkier. Mascara gives the illusion because it thickens the fine ends of the lashes.

It is untrue that if "shingles," herpes zoster, encircles the body the patient will die. The idea of death in such case is ancient. Pliny, the Roman naturalist, wrote in the first century, "It kills if it encircles." Treatment in the eighteenth century consisted of the "blood of tail of black cat."

The belief that leprosy is very contagious is due to Biblical references. However it is not true. In the past seventy years, fifty scientists, including a bacteriologist at Carville, injected themselves and convicts with mycobacterium leprae with no resulting infection. There are no special restrictions at Carville. Clergy, nurses and doctors in leprosaria have not contracted it. New York is one of several states having no restrictions (with the exception of food handling and care of children) of patients who have Hansen's disease. Close and prolonged contact is apparently necessary for its transmission. Leprosy was considered hereditary until the latter nineteenth century. However the rapid spread in Hawaii was too fast for heredity. A focus was present at one time in Minnesota. Infants taken from parents do not develop the disease. There is, nevertheless, an apparent tendency to run in families and family groups. Such familial incidence is com-

mon in tuberculosis, melanoma, cancer and alcoholism, none of which are themselves heritable.

For enlarged pores (apertures of pilosebaceous follicles) there is no "cure"—they may be more noticeable due to swelling of intervening tissue. The use of steam, slapping and astringents may cause temporary feeling of improvement.

Blackheads are not due to dirt and are not caused by face powder and cosmetics. Acne vulgaris is, according to modern concepts, due to circulating androgenic hormones that act on the shock organ, the pilosebaceous apparatus (hair follicles and sebaceous glands). Although this is probably the essential factor in acne there are doubtless other contributing causes such as intrafollicular irritation from certain foods and drugs, foci of infection, insufficient secretion of thyroid hormone, iron deficiency anemia, application of skin creams, seborrheic dermatitis of the scalp and probably nervous stress.

That masturbation causes acne or pimples is ridiculous. Origin—adolescence, puberty. There is no evidence that it causes any organic injury. Psychological effects vary and may be beneficial from effect on continence, although it may be injurious if an individual feels it causes degeneration and mental disease. It is unfortunate that there is so much misinformation. In a survey of college students, seventy-two percent believed it causes serious physical damage, sixty-nine percent serious mental damage, sixteen percent moral damage, fifty-two percent cause of insanity and twelve percent believed it causes serious social damage.

Many acne patients grow up in a repressive puritanical, Victorian atmosphere, parents are hard-working, devout Christians or Jews: swearing and misbehavior are forbidden. Sexual information or discussion hush-hush. Puberty is stormy. It is a fallacy that "acne is perfectly normal at your age and there is no object in doing anything about it as it will probably go away by the time you are 25 or 30 anyway." Acne is *not* normal but is definitely a serious skin disorder for two reasons.

First, the scarring which will last through life could be avoided in many cases by proper treatment by the family doctor. Secondly, and probably more important, is the psychological effect. Acne appears when the child is beginning to be interested in the opposite sex and budding social life is of utmost importance. Severe "complexes" can be avoided when a nice skin makes an adolescent feel socially acceptable.

"The older I get the more I seem to itch, particularly in the winter time"—"Although I bathe more often, the itching is not relieved"—is a common complaint of the older patient. Elderly patients must be made to understand that as they grow older it is inevitable that the sebaceous glands atrophy, consequently the skin becomes drier. Relief will be obtained by many through using an oil or lubricant of some sort, and curtailment of bathing.

"Everybody says I break out because my blood is too acid." Many patients seem to think that citrus fruits will cause hyperacidity while actually these fruits are alkalizing though, of course, not altering the pH of the blood. Every eruption from acne to zoster has been thought due to "too much acid" by one patient or another.

Birthmarks—a few are present at birth. There is no relation to shock or nervous condition in the mother and they often take the form of strawberry, cherry, lobster, spider, horse, etc., coincidentally. Birthmarks or nevi consist of pigment and blood vessels. Some are red, blue, brown, black or colorless.

Toads do not cause warts. The origin of this error is the warty skin of the toad. Warts are due to viral infection.

White heads have no relation to acne.

For wrinkles, creams do no good except to correct dryness.

For dry hair, washing, brushing, gelatin, thyroid are helpful.

"A round spot on the body . . . oh, that is ringworm!" Ringworm should be placed far down on the list of possibilities when one observes an annular eruption upon a patient's body. And let us not forget the circular ecze-

matous lesions, so commonly seen on the dorsum of the hand. These are much more apt to be so-called "housewife's eczema" than ringworm. One will get much further by removing these hands from contact with soap and the use of a mild tar cream than by using Whitfield's ointment or other strong fungicide.

"This may be skin cancer, but let's just watch it for a while and see what happens." It is definitely a bad policy to play a waiting game with a suspected malignancy. Few cancers of the skin cannot be cured. Early diagnosis is important and treatment in all cases consists of complete destruction of the malignant tumor. To "watch" an epithelioma and give it a chance to metastasize is nothing short of criminal negligence.

It is a mistake to believe that a boil means that the blood is "purifying itself . . . that a boil cleans out the system." The notion that boils purify the blood and "tone up" the system is but one of a thousand popular medical fallacies. Boils (furuncles) are caused generally by staphylococci which get into the skin either by way of the blood or through a cut or abrasion on the surface, or through a hair follicle. The germs grow, destroying the tissues and producing pus. Nature walls off the affected area to prevent its spread. When the walling off process is completed, the boil is said to be "ripe" or to have "come to a head." It is then it should be opened by a physician, under the strictest precautions against infection. That is, the instruments must be sterilized and proper surgical techniques used.

Therefore, a boil does not mean the blood is being purified. On the contrary, the boil serves as a focus or area of infection from which the blood may pick up germs and carry them to other parts of the body. Repeated attacks of boils at times are associated with unsuspected diabetes. The intelligent person suffering from one or more boils calls on his doctor for the proper examinations and treatment. There is much truth in the old adage, "He who is his own doctor, is physician to a fool."

104 East 40th Street

The Phobic Chronic Alcoholic

EDWARD PODOLSKY, M.D., Brooklyn, New York

The phobic chronic alcoholic has special reasons for resorting to alcohol. He does so, most often, in an attempt to moderate and ease his phobic confinement, to attempt an escape from his phobias, to attain some sort of emotional comfort. As far as he is concerned, alcohol seems to offer a pharmacological agent which has these magical qualities.

Let us, at the outset, consider the dynamics of the phobic reaction. A phobia is a persistent fear of something which is not objectively a source of danger but the individual reacts to real fear despite the fact that he realizes that this reaction is inappropriate. It is an unreasonable and persistent fear of some object or situation, and an attempt to avoid it. It is a special type of fear in which the victim has learned to avoid the fearsome object. In brief, a phobia is a fear which occurs in situations that would not ordinarily provoke a fear. The origin of the fear has been forgotten.

What is the origin of a phobia? There are two theories: the conditioning theory and the dynamic interpretation. In phobias, according to the conditioning theory, there is an emotional traumatic episode, feelings of guilt, repression from consciousness of the experience, and subsequent emotional upsets in the same situation without knowing why the upsets occur. In other words, a phobia is a fear provoked by a situation which has lost its conscious justification for provoking the fear.

In general, the dynamic interpretation holds that the phobia is a defense mechanism through

which the individual gets rid of an anxiety-arousing impulse. There is an impulse which normally arouses an emotional state; this impulse is repressed but the emotional state continues. The individual tries to explain his emotionally aroused visceral tensions and their causes, and seizes upon some object, situation or idea as the explanation. Since the explained situation is conscious it can be handled through avoidance, whereas the impulse, being unconscious, cannot be dealt with.

The phobic individual purchases freedom from anxiety by avoiding certain objects or situations, or at times by resorting to alcohol. For a time, peace of mind is assured by limiting his activities or negating them in an alcoholic stupor.

If, as the conditioning theory maintains, phobias result from one or more fear-producing episodes, the individual should, by avoiding the fear-producing object or situation, be free from anxiety and the whole problem would end there. It is here that the conditioning theory fails as an explanation of all phobias, for the anxiety in phobias may be a progressive maladjustment which continues to operate and spreads to other objects and situations. They spread simply because anxiety attacks occur in many situations and each situation is seized upon as an explanation of the anxiety attack. Eventually, if the attacks continue, the patient becomes a "phobic prisoner," finding no situation, even in his own home, which does not provoke a fear response. It is most often

under such conditions that the phobic becomes alcoholic in an attempt to find some degree of emotional equilibrium.

It has been stated that a phobia is a psychological narcotic, but as in narcosis the method of relief eventually becomes the disease itself. When the phobia itself is not sufficiently narcotizing, alcohol is the sought for its greater narcotizing qualities.

In summary, a phobia is a morbid fear brought on by some experience in the past. It is a defensive mechanism against a continual, severe anxiety. Alcoholism in a phobic is, in effect, also a defensive mechanism against a continual, severe anxiety. Herewith are presented several illustrative cases of the phobic chronic alcoholic.

CASE 1—R. M., Caucasian, 33-year-old male. During all his life, the sight of creeping, slithering creatures, such as snakes, scorpions, caterpillars, ants, created peculiar, creepy, physical and mental sensations in him. Not only the sight of these but hearing about them in conversation has the same effect on him. Mr. M was not sure of the cause of these sensations, unless it was the movement of so many appendages which produce undulating movement of the body. Apparently it was the writhing motion that produced his reactions.

Mr. M. began to drink at the age of 24. At 30 he was a confirmed alcoholic. He would consume several pints of whiskey and three to four quarts of beer during a drinking spree. He states that drinking helped to moderate his phobia to some

degree and to attain some degree of relaxation.

CASE 2—J.F.K., Caucasian, 34-year-old male. In the early twenties he began to suffer from a dreadful feeling of suffocation when he was in absolute darkness, without knowing the reason why. His first thought was to get outdoors or reach a window so that he could get some air or see a ray of light. The feeling of suffocation was sufficiently intense to make him feel sick.

Mr. K began to drink in his early twenties. Drinking, he found, moderated this phobia to some extent. When intoxicated he was able to withstand the impact of darkness and the nauseous sensation was considerably moderated.

CASE 3—M.V., Caucasian, 43-year-old male. He has a phobia of confined places. Entering a small room or a confining place of any kind results in a dreadful sensation of imprisonment. About fifteen years ago he was accidentally locked in a small hotel washroom. The space was quite constricted. He was in agony until released, and he was considerably upset for several hours afterward. He would not ride in elevators, especially when crowded. Riding in crowded trains or buses had the same effect.

Mr. V began to drink at the age of 22. He would consume about a quart of whiskey while on a spree. Drinking helped him to overcome, to some extent, the dread of confining places.

Conclusions

In conclusion, it can be stated that a phobia is a psychological narcotic. In those instances where its narcotizing powers are not sufficient,

another narcotic, namely alcohol is employed to attain some degree of emotional homeostasis.

1049 East 18th Street

Fungus Infections

MANNING J. ROSNICK, M.D.
Miami, Florida

*The treatment of
refractory onychomycosis,
otomycosis,
scalp ringworm,
and other
ringworm infections
with
triacetin*

The course of common fungus infections is influenced not only by the reaction pattern of the particular person and sites of involvement, but by the nature and properties of the infecting fungus as well. Because of these varying influences and the limitations of therapy, several types of fungus infection—such as refractory onychomycosis, otomycosis, and scalp ringworm—frequently represent a challenge to the dermatologist.

Onychomycosis, and scalp ringworm particularly, are extremely persistent disorders, and the various agents utilized for their cure leave much to be desired. Perfect function of the various agents and techniques used may result in control of the diseases but usually only after prolonged treatment. Therefore, on reading the report by Johnson and Tuura¹ of effective clinical results through the use of triacetin (Fungacetin®)* against infections caused by *E. floccosum*, *M. audouini*, *T. mentagrophytes* and other pathogenic organisms, and of the inhibitory effects of triacetin to the *in vitro*

growth of a number of dermatophytic fungi reported by Knight,^{2,3} I decided to test the agent clinically. This report describes the results of the clinical use of the ointment and liquid forms of triacetin in the treatment of common dermatomycoses, particularly refractory cases of onychomycosis, otomycosis, scalp ringworm, tinea cruris, and other ringworm infections.

Triacetin ointment contains 25 percent triacetin (glyceryl triacetate) in a water soluble base, and triacetin liquid contains 30 percent triacetin in a special denatured alcohol base.

Method

Triacetin ointment and liquid were used to treat superficial fungus infections in thirty-two adults and children who ranged in age from 1½ to 69 years.

The dermatomycoses treated were: onychomycosis—four patients, otomycosis—thirteen patients, tinea cruris—four patients, tinea capitis—four patients, epidermophytosis—four patients, other ringworm infections—three patients. The average duration of previous therapy, utilizing other agents prior to the application of triacetin, was one to two weeks.

Triacetin was applied twice or three times daily for three days to three weeks, with the

Medical Department, University of Miami Medical School. Assistant Attending Physician, Jackson Memorial Hospital.

*The trade name of The G. F. Harvey Co., Inc., for triacetin is Fungacetin®. The drug was supplied for this study by this firm.

TABLE I RESULTS OF TREATMENT WITH TRIACETIN (FUNGACETIN) OINTMENT AND LIQUID

DIAGNOSIS	PATIENTS	EXCELLENT	GOOD	FAIR	NO RESPONSE
ONYCHOMYCOSIS	4	1	3		
OTOMYCOSIS	13	3	8	2	
TINEA CRURIS	4	2	1		1
EPIDERMOPHYTOSIS	4		4		
TINEA CAPITIS	4	1	3		
OTHER RINGWORM INFECTIONS	3		3		
TOTALS	32	7	22	2	1
	(100%)	(22%)	(69%)	(6%)	(3%)

majority of patients using the agent for one week.

The results were classified as to effectiveness against four criteria:

- *Excellent*: complete remission of symptoms within one week and no recurrence when therapy was discontinued;
- *Good*: considerable improvement with symptoms partially but permanently controlled;
- *Fair*: partial and temporary improvement;
- *No response*: little or no change in symptoms.

Results

Table I shows that, according to the aforementioned criteria, triacetin produced excellent results in seven patients (twenty-two percent), good results in twenty-two patients (sixty-nine percent), fair results in two patients (six percent), and no response in one patient (three percent).

Of the four patients with onychomycosis, one obtained an excellent result and was completely cured within one week, and three patients obtained good results within ten days. Of the thirteen patients with otomycosis, eleven obtained excellent or good results and two, fair results. Of the four patients with tinea cruris, three patients achieved excellent or good results and one, no response. Good results were seen in all four patients with epidermophytosis, and all four patients with tinea capitis achieved excellent or good results. Good results were also observed in the three patients with miscellaneous ringworm infections, the

improvement being noted after six days of treatment in one patient and within two weeks in the other patients.

Triacetin yielded excellent or good results in eighteen patients who had proved resistant to therapy with other fungicides.

Marked clinical improvement was noted within one week in twenty-two of the thirty-two patients in this study (sixty-nine percent) with remission of the symptoms of itching, pain, and burning usually achieved within two to three days after the beginning of therapy. No adverse topical or systemic reactions were observed in any of the patients treated, and there was no evidence of the development of tolerance to the medication.

Discussion

One of the most interesting clinical observations was the rapid and successful treatment of onychomycosis with triacetin. Although the sample was small, the results in treating this persistent disorder were striking. Previous extensive treatments that employed scrapings, applications of solutions, and avulsion of infected nails were telescoped into successful therapy by twice-daily applications of triacetin.

The efficacy of triacetin is apparently due, not only to the sustained release of acetic acid until a low pH is achieved through enzymatic hydrolysis, but also to the excellent penetrating capacity, which allows the agent to permeate the involved area more rapidly and effectively.

Otomycosis and scalp ringworm, which like-

wise may ordinarily require prolonged therapeutic procedures, also responded quickly to treatment.

The chemoenzymatic pH relationship apparently assures a nonirritating level of the agent at the site of infection, because triacetin is so bland that it can be applied full strength.

It is appropriate to comment that both the ointment and liquid forms of triacetin are non-staining to skin and clothing and adequately meet the standards of cosmetic acceptability. The agent is particularly adaptable cosmetically in that the liquid may be applied during the day and the ointment at night.

Summary

Triacetin (Fungaceticin®) ointment and liquid were applied to thirty-two patients with superficial fungus infections. The agent in either form was used twice or three times daily for periods of from one to three weeks. Good or excellent results were seen in twenty-nine of the patients (ninety-one percent), a number of whom had been resistant to previous therapy.

Triacetin proved particularly effective in treating refractory onychomycosis, otomycosis, and scalp ringworm. There were no adverse side effects or allergic reactions to the preparation. Fungaceticin, in this study, proved to be a potent, nonirritating, fungicidal and fungistatic agent for the treatment of chronic, resistant dermatomycoses.

References

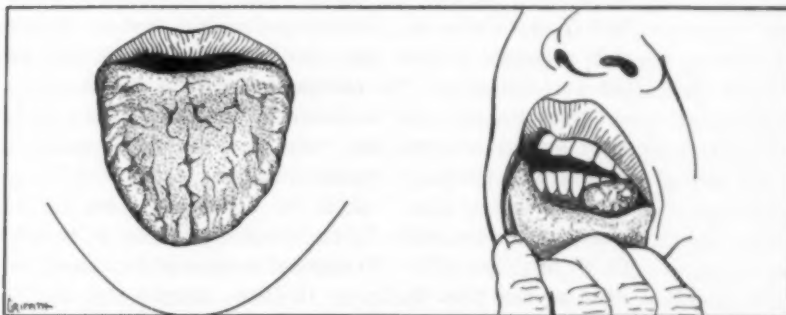
1. Johnson, S. A. M., and Tuura, J. L.: Glyceryl triacetate (triacetin) as a fungicide, A.M.A. Arch. Dermatol. 74:73, (July) 1956.
2. Knight, S. G.: Observations on submerged growth and deamination of amino acids by dermatophytes,

J. Invest. Dermat., 28:363, (May) 1957.

3. Knight, S. G.: The in vitro antifungal activity of triacetin, Antibiotics and Chemotherapy 7:172, (April) 1957.

14 Northeast First Avenue

CLINI-CLIPPING



A (above left).—Congenitally fissured tongue. Separation of long papillae resemble fissures. B (above right).—Pregnancy tumor of gum. Hemangiomas tumor that occasionally appears during pregnancy. Treatment indicated if bleeding occurs. Tumor usually recedes after termination of pregnancy.

EDITORIALS

PERRIN H. LONG, M.D.



HOSPITAL STRIKES

It would appear that a pattern, sponsored by the Teamsters Union and certain AFL-CIO Unions for the organization of the non-professional personnel of voluntary and municipal hospitals, is emerging in our country.

Attempts to organize hospital workers in this country are not new. Since the end of World War II increasing pressures have been brought by the unions on hospitals to sign contracts with them. Certain hospitals signed on the dotted line—among them Maimonides Hospital in Brooklyn and Billings Clinic in Chicago. Opponents of these practices state that these hospitals received "sweetheart" contracts. Billings is said to have had a union contract for twelve years. Probably the biggest and most profitable (for the union) contract with hospitals is that of Local 237 of the Teamsters, and Local 420, AFL-CIO negotiated in 1954 shortly after union-loving Robert Wagner, Jr. became Mayor of New York. Under this, the non-professional workers in twenty-eight municipal hospitals and other Department of Hospital facilities were unionized. This contract includes the "check-off."

During the past year in Baltimore, in Chicago, and in New York definite attempts have been made by the Teamsters and various AFL-Unions to organize voluntary hospitals. It is worthwhile to take a close look at the arguments which are being placed before the public by the Union organizers. In Baltimore, O. W. Singelton, AFL-CIO regional director of the organizational drive against three Baltimore Hospitals charged that the Johns Hopkins Hospital held "captive meetings" at which employees were "harangued with anti-union arguments, exaggerations and falsehoods" and that Hopkins was trying "to compel strike action by the union so that union workers can be discharged and displaced." Further he dilates on "the callous indifference which

does not permit hospital management to recognize that poverty is also a disease." He then goes on to say in a pious manner, "Baltimore's fine hospitals do a truly wonderful job in serving the sick, injured, and diseased We do not question their dedication to their work." (THE SUN, Baltimore, Sunday Morning, October 4th, 1959). About two weeks later (THE SUN, Baltimore, Friday Morning, October 16th, 1959) the spokesman for the union was addressing the non-professional workers and the student nurses of Hopkins as follows: "The efforts of the Hopkins professional union buster . . . (labor relations consultant) fail to reckon with the fact that many decent minded students would quit before scabbing." This is the old familiar line. It might be added that the student nurses had the good sense to ignore it.

In Chicago, where unions are attempting to organize seventy hospitals, it's Mr. Hoffa's Teamsters who are the prime movers in this endeavor, although the AFL-CIO County and Municipal Employees Union, Local 1657, is currently (October 25th) striking Mt. Sinai Hospital and the Home for Incurables in that city. The Teamsters have pledged their support to this strike. Here again we find the president of Teamsters Local No. 743 being quoted as saying "the welfare of hospital patients will be uppermost in our minds at all times and none of our actions will ever effect any patient in a detrimental way." At the same time, out of the other side of his mouth, the spokesman for Local 743 said relative to the strike against Mt. Sinai Hospital and the Home for the Incurables, "all the financial, moral and legal aid needed to bring about a successful conclusion to these two strikes has been pledged." The quotes are from the CHICAGO SUNDAY TRIBUNE, October 25, 1959. It is hard to reconcile these two statements.

It is also worthwhile for all doctors and hospital administrators to take a good look at what happened in New York City last spring when Local 1199 of the Drug Employees Union with certain help from the Teamsters

and other unions tried to organize and actually struck six voluntary hospitals. Injunctions against the strike and its leader issued by the Supreme Court of New York were contemptuously ignored by the Union. The head of the union went underground for days during the strike to avoid the service of summons. The Mayor of the City of New York bent over backwards trying to help force the struck hospitals to accept the union's demands, non-professional employees who did not go on strike were assaulted, beaten up, and injured, the police were attacked by pickets, the graduation exercises of New York Medical College were disrupted by the strikers, and what was most terrifying was that the strike was so organized that it affected patient care and helpless patients suffered. This strike was eventually settled by a rather poor compromise, and no one knows when trouble will erupt again. From the point of view of law and order is the fact that *union leaders flouted court orders and got away with it, except for one, light, suspended sentence for contempt of court.* This disregard for the law and courts and the callous indifference to human suffering shown by union leaders is something with which we should all be concerned.

What's back of all this? Certainly a lust for power by the union leaders, and, without question, the control of the money which would be received from the dues of an estimated five hundred thousand non-professional hospital employees in the country. These two motives, however, are never mentioned by the union leaders and organizers. Well, what do they say they are after? Increased wages is the number one objective. Is this a valid demand? One has to say in this day and age when the national minimal wage scales is one dollar an hour (without fringe benefits), that in a number of instances hospital employees are paid less than the minimum. *This should be corrected.* How? This will be explained later. Working conditions? They are fairly good in most hospitals and actually a forty-eight hour week should not seem onerous. Grievance control? No! If hospital trustees

and administrators want to waste time, become frustrated, and feel constantly about to blow their tops, they will permit the union to set up grievance committees in their hospitals. Recently, in the Hospital in which your Editor has a great interest, *32 hours of employees and administrators time were consumed in settling one minor grievance*. How then can this be handled?

A committee should be set which gives adequate representation to both sides, which operates extramurally from the hospital, and it should function outside of grieved employees working time. Keep your local politician out of grievance business. You're lost otherwise.

Furthermore, as physicians and hospital administrators, and as prospective patients, we should make certain that the politicians do not yield to union pressure and enact State or Federal laws which will put hospital employees under the National Labor Relations Board, or create comparable agencies at Federal or State levels.

SHALL OR WILL?

Recently, and at far too advanced an age, your Editor has been studying the construction of the English prose sentence. In the course of this he came across what to him was some very interesting information about the use and meaning of *shall* and *will*. (Whether it will interest anyone else is another matter).

His first major interest in *shall* and *will* developed during World War II when he was assigned to the Headquarters, Allied Forces in North Africa. Considerable argument developed in that Headquarters over which was stronger and more directive *shall* or *will*. Should one say, "You *will* do so and so," or was "You *shall* do so and so" the way to write it up, so that the poor fellow down below would not have a leg to stand on if he ignored the directive. Then too, in the course of these discussions someone would always bring up the state-

ment made by a famous General when he was leaving the Philippines, "I shall return" and ask what did he mean? Simply that in the future he would return? Or was there more force in "I shall," a kind of directive to himself and to the people of the Philippines relative to his eventual return as a victorious commander. Actually, there was no solution of these discussions because dictionaries were rarely included in the Tables of Equipment of overseas units in World War II and "Why should a grammar be included?" said the planners. The net result is that the poor commanders down below were indiscriminately *willed* and *shalled* (what a bad pun) in directives originating in the Headquarters of Allied Force.

Now, if wages are raised to the minimal or above the minimal legal level how will these extra costs be met? By increasing ward, semi-private, and private rates to meet the increased cost of personnel! When this is done, a clear, simple, financial statement should be prepared which shows these increased costs and how they are being met. This should be given to each patient and their relatives. *The public is entitled to know exactly why costs have gone up.* (And so is the Union.) Be prepared for an uproar from the Union. Its officials will object strenuously, and ventilate their current line, that wages can be increased without increasing the price of the product or service. The union or unions may go even so far (as they recently did in New York City) as to threaten to set up their own hospitals if Blue Cross rates were raised. It is impossible to ascertain whether union officials believe the line they are taking or whether they know that it is nonsense but threatening. One thing, however, is obvious, *they want to eat their cake and still have it.*

The story really though appears to be relatively simple and an interesting book in which to read about it is *the pattern of English* by George H. Vallim. (Published in the U. S. A.

by Penguin Books Inc., 3300 Clipper Mill Road, Baltimore 11, Maryland.) "*Shall* as a future auxiliary has attached itself to the first person, and *will* to the other two persons." (Page 22) Now, on this basis, let's consider a great General's famous statement, "I shall return." This is in the simple future tense. Did he mean that? If he had a great desire to return at the time he said this, wouldn't he have used *will* and said, "I will return." Here the meaning goes beyond futurity. As has been pointed out by Vallim when *will* is used with the first person something more than simple futurity is being expressed. Desire or determination enter the word picture. My guess is that the great General just confused *shall* and *will* at that moment as we all do frequently.

Now, about the directive writers in the Headquarters of Allied Force. There is good news for those who used *shall* when addressing second or third persons. Says Mr. Vallim, "but it is worth noting that when *shall* is used with them (second and third person) it always has certain overtones of, for example, compulsion or promise or threat." (Page 23) So there we have it, because there is little doubting the desire of the directive writers to throw

fear into the hearts of their readers and a threatening *shall* certainly would do it.

But now, if you have read this far, comes a shattering denouement, for in "*A Grammar of the English Language*, in a Series of Letters intended for the use of Schools, and of Young Persons in General, but more especially for use of Soldiers, Sailors, Apprentices, and Ploughboys" by William Cobbett (1817), he says (Page 278), "I need not dwell here on the uses of *will*, *shall*, *may*, *might*, *should*, *would*, *could*, and *must* which uses, various as they are, are as well known to us all as are the uses of our teeth and our noses, and to misapply which words argues, not only a deficiency in reasoning faculties, but almost a deficiency in instinctive discrimination. I will not, my dear James, in imitation of the learned doctors pester you with a philological examination into the origin and properties of words, with regard to the use of which, if you were to commit an error in conversation, your brother Richard, who is four years old, would instantly put you right."

So there we are! We should know the use intuitively.

How many who read this do?



WHAT IS YOUR VERDICT?

In this issue and every issue, *Medical Times* presents authentic medico-legal cases and their interesting court decisions. Test your medical magistracy. See page 53a.

Remember
When...

Every man wore a hat or cap, and most of the hats were derbies. (After being almost missing from the scene for twenty years, derbies are again in style.)

Women all wore hats, and preferred to be dead rather than be seen with a scarf over their head. (Peasant women wore scarfs.)

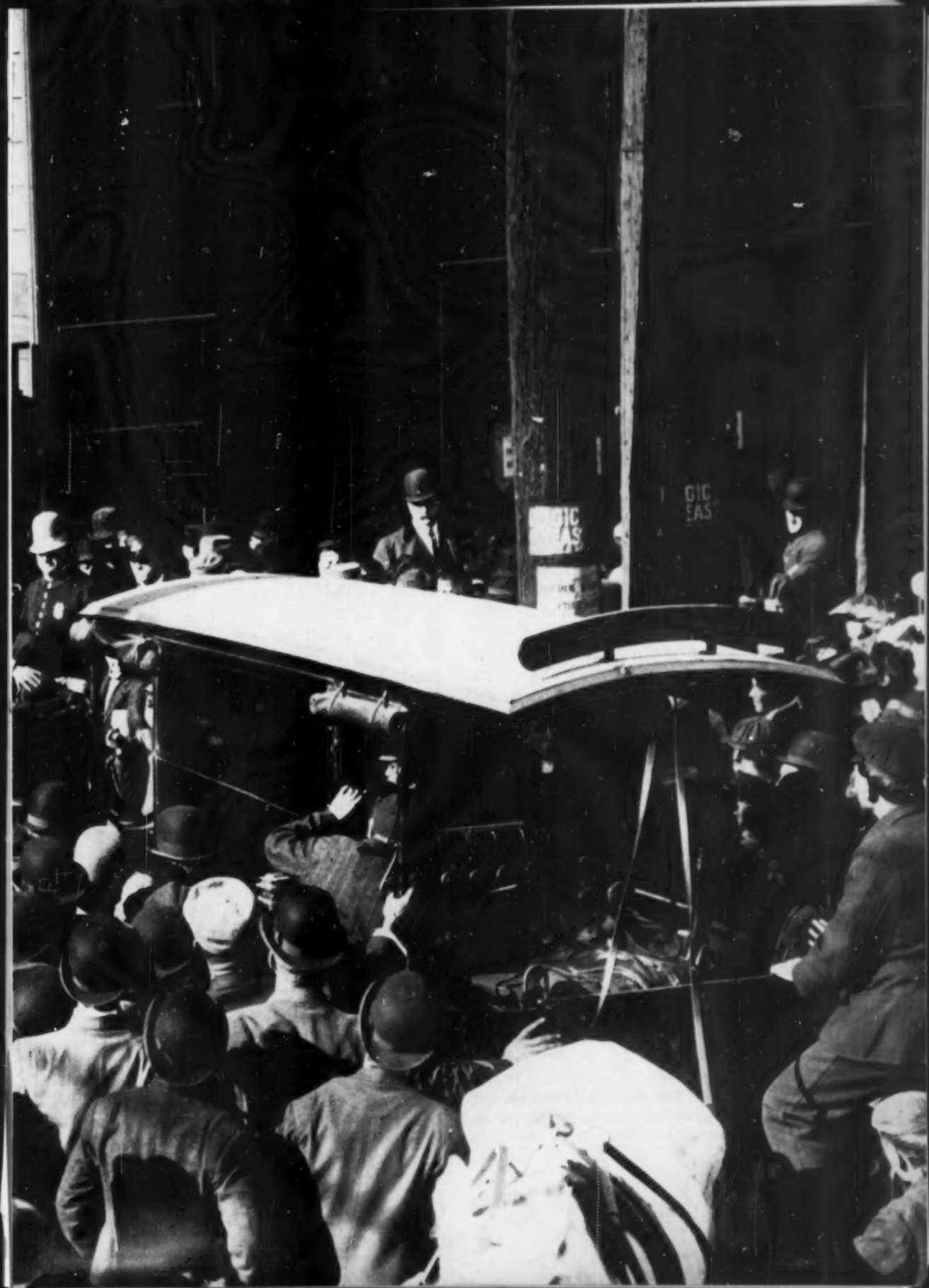
The cops were practically all Irish, juvenile delinquency was not a major problem, and there was a lot of law in the end of a nightstick.

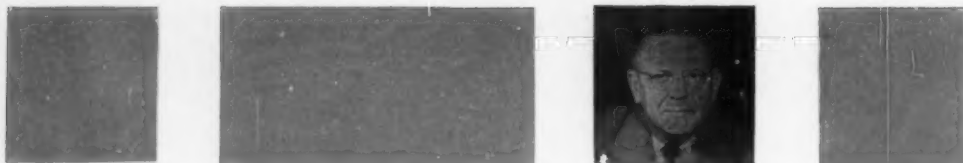
Cops looked like cops and were proud of it.

The appearance of an ambulance, which so frequently meant tragedy, always drew a curious crowd which, because time was not pressing, could stand and gape.

Photo: Brown Bros., N.Y.C.







THE LONG AND SHORT OF IT

From Your Editor's Reading

Results of Treatment of Obesity

"In recent years the ill effects ascribed to excessive body weight have received wide attention, as have the benefits to be achieved by weight reduction. As a result many physicians and their patients, who had formerly looked upon weight reduction as a cosmetic conceit, have come to consider it a therapeutic imperative. A variety of lay institutions, notably the magazines for women, has seized upon this growing interest in weight reduction and has helped to magnify it to the proportions of a national neurosis. The influences responsible for this unfortunate development are not fully understood. The medical profession, however, must accept some responsibility. For underlying the extravagances of the miracle diets and the reducing salons are certain widely held medical attitudes.

Many years ago detailed metabolic studies demonstrated that human beings do not defy the second law of thermodynamics and that excessive body fat results from an excess of caloric intake over caloric expenditure. This not unreasonable finding was thereupon enshrined as the dictum that 'all obesity comes from overeating,' and the treatment of obesity lost its glamour. The physician's job, it seemed, was simply to explain that semistarvation re-

duces fat stores, to prescribe a diet for this purpose, and to sit by. If the patient lost weight as predicted, this merely confirmed the comfortable feeling that treatment of obesity was really a pretty simple matter. However, if, as so often happened, the patient failed to lose weight, he was dismissed as uncooperative or chastized as gluttonous. It was the rare physician who entertained the possibility that failure to follow a regimen might in itself be a medical problem. Rarely have physicians so readily surrendered a part of their domain to moralizing, indifference, and despair.

What have been the consequences of this surrender? First, the naive optimism of the medical profession about treatment for obesity has been widely accepted by the lay public. Most obese persons feel that they should be able to lose large amounts of weight in a short time and with little discomfort. When they find that these expectations are not realized and when they encounter the irritation of their physicians over this failure, they turn to any agency which promises results. The profusion of nonmedical agencies testifies to the extent of our patients' needs and to the magnitude of our failings.

How may the medical profession regain its proper role in the treatment of obesity? We can begin by looking at the situation as it

exists and not as we would like it to be. We can acknowledge that treatment for obesity is a terribly difficult business, one in which our experts achieve only modest success, and the rest of us, even less. It is a treatment which can be fraught with danger, a treatment not to be undertaken lightly by any obese person and by some perhaps not all. Certainly weight reduction is not a matter to be left to unqualified practitioners.

Lowering our level of aspiration may go far toward achieving our aims. If we do not expect weight reduction as a matter of course we may be able to accord due recognition to success. If we do not feel obliged to excuse our failures we may be able to investigate them. Learning to respect the complexities of their illnesses will help us to respect our patients. And the patient who has the respect of his physician has little reason to seek elsewhere for treatment.

A review of the literature on outpatient treatment for obesity reveals that the ambiguity of reported results has obscured the relative ineffectiveness of such treatment. When the percent of patients losing 20 and 40 lbs. is used as a criterion of success, the reports of the last 30 years show remarkably similar results. Although the subjects of these reports are grossly overweight persons, only 25% were able to lose as much as 20 lb. and only 5% lost 40 lbs.

Routine treatment of 100 consecutive obese outpatients in the Nutrition Clinic of a large teaching hospital was even less successful. Only 12% were able to lose 20 lbs. and only one patient lost 40 lbs. Furthermore, 28% of the patients never returned to either the Nutrition Clinic or the referring clinic after their first visit. Two years after the end of treatment only two patients had maintained their weight loss.

A search for criteria which might aid in predicting the outcome of attempts at weight reduction revealed only one: Men appear to be more successful than women."

ALBERT STUNKARD and MAVIS McLAREN-HUME
Arch. Int. Med. (1949) Vol. 103, No. 1, Pp. 84-85

Fat Children

"The recently published report of the chief medical officer of the Ministry of Education for 1956 and 1957 marks the jubilee of the school health service. The emphasis is therefore upon a comparison of the health of the schoolchild today and 50 years ago, and it is with justifiable pride that the chief medical officer notes that 'contrasted with children of 50 years ago the boys and girls of today are of better physique, are well clad and shod, and are cleaner, and their expectation of life at birth is 20 years longer.' That the pendulum is swinging too far is suggested by the fact that, to quote the chief medical officer again, 'obesity in children is now attracting at least as much attention as undernutrition.' In Bristol, for instance, all but four of the 94 children who attended the 'nutrition' clinic during the period October 1955 to December 1956 were referred because they were at least 21 lbs. above the average weight for their age and height: 24 were 42 lbs. or more overweight, and 9 were 70 lbs. overweight. Not only are children growing faster, they are also maturing earlier. The age of menarche is getting steadily lower at the rate of about four to six months a decade. The possible implications of this earlier maturation of our children are not discussed in the report, but the experts have been quick to note them. The nutritionists, for instance, are asking whether this earlier attainment of adult physical status is likely to have an adverse effect on the expectation of life, whilst school medical officers are drawing attention to its possible association with delinquent behavior in older schoolchildren."

WILLIAM A. R. THOMSON (in "The London Letter")
Canad. Med. Assn. Journal (1959)
Vol. 80, No. 5, P. 396.

Treatment of Obesity

"Problems of etiology, mechanisms of production and factors contributing to development of obesity were reviewed last year in this

Journal by Cappon. To emphasize further the multiplicity of factors involved in this disorder, Fertman reports a careful study of five cases of severe obesity. She found that constitutional factors, overeating, functional disorder of the diencephalo-hypothalamic area, gonado-pituitary disorder, trauma, and inactivity all played a part in various combinations in producing obesity in these patients. Four patients who had an excessive appetite also complained of nervousness, and one of them had suffered from recurrent bouts of encephalitis. In the fifth patient, obesity was sudden in onset, she denied overeating or mental distress and there was no known obesity in her family.

Fertman makes a plea for more careful autopsy studies in severe obesity, and believes that more attention to the endocrine glands eventually will yield more information regarding the etiology of the condition. But what about the mildly obese person who is without symptoms? Is he in need of treatment? Statistics have been compiled which show that obese people die earlier than the non-obese. Experiments on rats and other mammals described by Burch show clearly that underfeeding of the newborn delays their maturity but prolongs their lives. He quotes McCay as stating that 'the thin rat goes to the funeral of the fat rat.' The need for early maturity which exists in wild animals does not exist in man, who can afford to mature slowly.

In spite of the fact that many physicians and their patients have come to consider weight reduction as an absolute therapeutic necessity, it has to be acknowledged that even under the best treatments the results are not too good. This is brought out very clearly by Stunkard and McLaren-Hume, who summarized the results of reducing treatment by various authors, and report their own results on one hundred consecutive patients in a nutrition clinic of a large teaching hospital. Only 12 of their patients lost 20 lbs. or more, and of these only two maintained this loss after two years. These figures resemble those obtained by the other writers whose results they review and who are all specialists in the

field of nutrition. The authors rightly wonder what the results of reducing treatment must be in the hands of the average physician. It may be appropriate to interject here that most of the work quoted was performed in clinics where the relationship between physician and patient is never quite so intimate as in the private office of the physician. It is nevertheless quite obvious that medical treatment of obesity is singularly unsuccessful, and the great number of reducing salons and of reducing diets offered to the public are the most striking evidence of this.

The present writer has experienced the same heartbreaks as most other physicians, and has speculated, like many another, on the reasons why some people reduce much more easily than others. Furthermore, the impression is growing that it was easier 15 years ago to convince a patient of the importance of underlying anxiety or insecurity as a factor in their overeating. At present the patient often tells the doctor that she or he is overeating because of insecurity or anxiety, and asks, sometimes belligerently, what to do about it. Are they just paying lip service to certain popular notions which have been publicized in the press or are we really powerless to help people overcome their disabling emotional difficulties? That is the question."

Editorial and Comments, *Canada. M.A.J.*,
Vol. 80, No. 8, P. 657. Apr. 15, 1959.

Pressure and Obesity

"Two conclusions to be drawn from the observations made in this study are quite clear-cut. The first is that the bigger and heavier a man is, in relation to his height the higher will be his blood pressure. This is the same as most surveys have concluded. The second conclusion is that the composition of the excess weight is immaterial: it is the overall bulk that counts, be it muscle or fat. Commonly, of course, it is fat.

To what extent is blood pressure affected by changes in weight? Assuming that the results

of this survey can be applied to any one individual whose weight is changing, then the systolic pressure would be expected to rise by 10 mm. Hg and the diastolic by 7 mm. Hg for each increment of 28 pounds in body weight. This assumes there have been no concomitant changes in age, height, or arm circumference. If we take into consideration the average increase in size of arm to be expected with this gain in weight, then the rise in observed systolic and diastolic pressures would be of 12 and 9 mm. Hg respectively. The influence of weight on blood pressure in this group of men is 3 times greater than what has been reported among Norwegians. It is in sharp contrast with the complete lack of relationship between blood pressure and body bulk in natives of New Guinea.

Why should blood pressure increase with body weight? The following argument leads to a rather fanciful, though perhaps plausible, explanation. When weight increases, the bulk of tissue increases and there is an increase in the expenditure of energy and the demand for blood. The vascular bed and the cardiac output must increase: cardiac output seems to be related to surface area, which of course, increases with bulk. But what happens to blood pressure when the augmented cardiac output is forced into an aorta and elastic arterial reservoir that may not have increased in capacity as the body weight rose?

Let us assume that the size of the aorta does not increase. Then, taking average figures for pulse rate and cardiac output, we can calculate the expected increase in cardiac stroke volume for any particular increase in body size. In addition, from the volume-pressure characteristics of the human aorta, we can predict the rise in pressure that this extra stroke volume will produce. Thus, for a man who is 30 years of age and 70 inches high, the mean pressure would be predicted to rise by 17 mm. Hg when he increased in weight from 140 to 210 pounds. The actual observations in our own series, relating to a weight increase of this order, implied a rise in mean pressure of 21 mm. Hg (that is, from 124/74

to 149/91 mm. Hg for a man having an average arm circumference and fatness). The observed and predicted rises in pressure are not grossly dissimilar.

Finally what part does cholesterol play in the ill effects of obesity? The results of this study show that the level of serum cholesterol rises with age but is not related to the level of blood pressure, obesity, or body weight. These topics have been discussed elsewhere. If it is accepted that obesity or, rather, overweight predisposes to the development of coronary artery disease, then the evidence would force us to favor the 'blood pressure' rather than the 'cholesterol' school in the controversial matter of the pathogenesis of arterial disease. However, it is conceivable that the life-long bathing of arterial walls in serum containing high concentrations of cholesterol—which is a feature of our Western civilization—gradually impairs the volume-elasticity characteristics of the main arterial reservoir. This could be a factor in the association of a rising blood pressure with advancing age and with increasing body weight, both of which are prominent among Australians, whose average serum cholesterol concentration exceeds 200 mg. percent, but absent among natives of New Guinea whose cholesterol level is only 130 mg. percent.

The conclusion is that blood pressure is related to weight or bulk of the body, but not to obesity except insofar as it contributes to bulk. To outgrow one's aorta might be one of the dangers of overeating."

H. M. WHYTE

Circulation (1959) Vol. XIX, No. 4, Pp. 514-15.

Respiratory Effects of Obesity

"This case also demonstrates the deleterious effects which result from hypoxia and hypercapnia. The progressive fatigue and headaches of increasing severity are probably the result of the altered blood gases. The confusion and drowsiness, and the unconscious episodes, are typical of severe hypoxia and respiratory aci-

dosis. In addition the papilloedema noted on admission to hospital can be related to severe hypercapnia, since this has been described in emphysematous patients who have CO₂ retention. The alterations in the electroencephalogram are probably also the result of alterations in blood gases.

Though this patient has exhibited marked improvement of pulmonary function with weight loss, the arterial gas values are not yet normal. While this may be achieved with further weight loss, the possibility of mild pulmonary disease must be considered.

The symptoms and signs due to the hypoventilation syndrome in the obese individual develop insidiously, and frequently have been present for a long time without patient or relatives realizing their presence. The obese patient who is hypoventilating might therefore be likened to the myxoedematous individual. In both, the insidious nature of the development of the signs and symptoms and the resulting dulling of the sensorium, and possibly confusion, frequently delay the initial visit to the physician for medical attention. The insidiousness of this syndrome is pointed out by the fact that it was only in retrospect that the family volunteered a history of headache and progressive fatigue.

Thus it can be seen that even in the absence of obvious clinical lung or heart disease, the obese individual may be suffering from deleterious effects on the respiratory and haematological systems, which in turn may affect the sensorium and produce neurological signs. These far-reaching effects of obesity emphasize and underline the preventive and therapeutic implications of excessive weight with or without pulmonary disease."

REUBEN M. CHERNIACK
The Canadian Med. Assn. Journal (1959)
Vol. 80, No. 8, P. 615.

Cigarette Smoking, Serum-Cholesterol, Blood-Pressure, and Body Fatness

"Samples of men aged 20-59 years were studied in rural West Finland, in rural East

Finland, and in Helsinki. There were 360 regular cigarette smokers and 165 men who never smoked. At all ages and in all regions, except in the 50-59 age-group in West Finland, the smokers had higher average serum-cholesterol values than the non-smokers. At all ages and in all regions the smokers tended to have slightly lower blood-pressures than the non-smokers. In both rural areas the smokers tended to be slightly thinner than the non-smokers, but in Helsinki there was no clear relation between smoking and body fatness.

It has been reported that heavy smokers in California tend to have higher serum-cholesterol values in the 20-39 age-group but not in the 40-59 age-group (Gofman et al. 1955). But it is not clear whether the smokers and non-smokers were truly comparable in other respects. A statistically significant association between smoking and elevated serum-cholesterol levels was observed in American medical students by Thomas (1958). In the present study it is of interest that in both rural areas the smokers tended to higher serum-cholesterol values than the non-smokers in each of the three age-groups 20-29, 30-39, and 40-49, but not in the 50-59 age-group. In Helsinki, however, there was a difference between smokers and non-smokers in every age-group, including 50-59; this difference appeared to increase with age, the mean differences in successive decades being 7, 17, 33, and 40 mg. per 100 ml. Among the smokers, those who smoked most tended to have the highest serum-cholesterol level.

Though we have no explanation for these age trends, it does seem that by the time middle age is reached the smokers in Finland generally have had many years of exposure to a higher cholesterol level in the blood than the non-smokers in the same community. This fact should be considered together with the evidence that a higher blood-cholesterol level is associated with an increased susceptibility to ischaemic heart-disease. Here may be, at least in part, an explanation for the reported disparity in heart-disease mortality between smokers and non-smokers.

The difference between the smokers and non-smokers with regard to blood-pressure and fatness does not indicate a greater tendency for smokers to develop heart-disease. But with these variables the differences, though statistically significant, are very small. It is difficult to imagine how an average difference of 5 mm. Hg systolic or of 3 mm. Hg diastolic blood-pressure would influence the development of heart-disease. The same is true of the difference in relative fatness. The measurements of the combined skinfolds indicate that, for the grand average, the non-smokers have a subcutaneous-fat layer that is barely 1 mm. thicker than that of the smokers.

The smoking of Finnish-type cigarettes by some of the men does not explain the differences observed. The blood-pressure values of the two kinds of smokers were identical. There was no difference in serum-cholesterol level in the two rural samples, as against a difference significant at the 0.05 level in the Helsinki sample. This discrepancy may be explained by the Helsinki Finnish-type smokers being a

specially self-selected group (only 16% of all smokers).

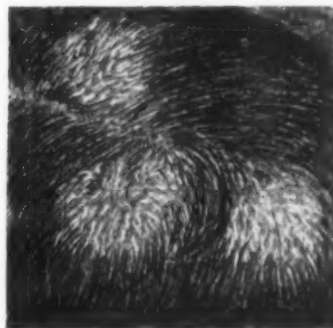
These data from Finland display interesting differences between smokers and non-smokers. But they do not explain the origin of the differences, and we are not justified in concluding that habitual cigarette smoking causes the serum-cholesterol to rise, the blood-pressure to fall, or the body to lose fat. The kind of person who smokes, in contrast to the one who is not inclined to take up smoking, may simply be so constituted otherwise that he tends to have an elevated blood-cholesterol and a low blood-pressure, and to be relatively thin. In a recent 5-year follow-up study we found that men who stop smoking tend to become fatter (Brozek and Keys 1957). This accords with the common observation that smoking depresses the appetite. We cannot explain the reason for the differences in serum-cholesterol and blood-pressure observed in Finland."

MARTTI KARVONEN, ESKO ORMA, ANGEL KEYS,
FLAMINIO FIDANZA, JOSEF BROZEK
The Lancet, (1959) No. 7071, Vol. 1, P. 494.



CLINI-CLIPPING

Use of ultraviolet light (Wood's lamp) for detection of ringworm of head. Short, broken hairs glow with a greenish fluorescence.



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INVESTING

FOR THE SUCCESSFUL PHYSICIAN

Prepared especially for Medical Times by C. Norman Stabler, market analyst of the New York Herald Tribune.

FEDERAL FINANCING

When the United States Treasury last October completed, in a highly successful manner, its offering of \$2 billion in 5 per cent bonds, with a maturity date of four years ten months hence, it was rightfully elated because it appeared to have found the interest rate that would appeal to individual investors. It was necessary for it to shorten the maturity to slightly less than five years, because Congress, at its last session, refused to change the statutory limitation which places a ceiling of $4\frac{1}{4}$ per cent on Treasury offerings running for five years or more.

The step was so successful that subscriptions for well over \$11 billion were received for the \$2 billion offering, and the desired result, namely selling a large block of the bonds to individual investors instead of leaning entirely on institutions and the banks, was obtained.

One may ask, if 5 per cent for a maturity of just under five years will produce such banner results, why then does not the Treasury try it again when it needs the money?

There is an answer, and it is in the negative. At least let us say the indications are the Treasury will not rush into this type of financing soon, despite its success. An explanation is in order. A quick one, lacking in technical terms, which came from a Washington dispatch, is that, "You may want a glass of water,

but you wouldn't turn on the hose and put it in your mouth."

To understand why the Treasury is reluctant to try it again soon, it is necessary to understand the things it can do when it is faced with the necessity of raising large sums of cash or of refunding short-dated debt.

There are four things it can do.

1) It can sell securities to commercial banks. This increases the money supply and increases bank liquidity.

2) It can sell short-term securities to non-financial corporations. This would tend to work against the credit restraints which the Treasury, and the Federal Reserve, are anxious to exert.

3) It might sell additional securities to non-bank, financial institutions. This would put it somewhat in competition with itself, through the issuance of government-guaranteed mortgage debt.

4) It can sell securities to the general public, i.e., individuals, rather than the banks, corporations and institutions.

The new 5s sold last October fall into this fourth category, as a good proportion of them were placed with ordinary individual investors. But to get the money to buy the new bonds these individuals drew on their savings bank deposits, their shares in savings and loan asso-



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NIAMID gives the depressed elderly person a new sense of well-being. The family will notice a sunnier outlook, an alert interest in group activities, a renewed awareness of personal appearance, and a return of appetite. Your patient will be more cooperative and less demanding.

You can expect to see the same excellent response to NIAMID in a wide variety of depressive syndromes—acute or chronic, mild or severe, whether associated with long-standing or incurable illness, or masquerading as organic disease.

NIAMID side effects are infrequent and mild, and often lessened or eliminated by a reduction in dosage. NIAMID has not been reported to cause jaundice, and significant hypotensive effects have rarely been noted.

DOSAGE: Start with 75 mg. daily in single or divided doses, and adjust according to patient response. NIAMID acts slowly, without rapid jarring of physical or mental processes. Some patients respond to NIAMID within a few days, but for full therapeutic benefit, most require at least two weeks. NIAMID is available as 25 mg. (pink) and 100 mg. (orange) scored tablets.

Already clinically proved in several thousand patients—

Complete references and a Professional Information Booklet giving detailed information on NIAMID are available on request from the Medical Department, Pfizer Laboratories, Division, Chas. Pfizer & Co., Inc., Brooklyn 6, N. Y.

NIAMID
*the mood brightener
in geriatrics*

*Trademark for nialamide

 Science for the world's well-being™



ciations and their time deposits with commercial banks, and they sold savings bonds. Another way of stating the same thing is that individuals, far from reducing their expenditures for goods and services in order to get the money necessary to buy the new bonds, merely shifted previous savings out of one form and into another.

THE PROFESSIONAL TOUCH—FEMININE

Women virtually dominate the pharmaceutical profession in the Soviet Union, we learn from an edition of "Chain Store Age" devoted to Russian drug stores. There are other contrasts with our own drug stores.

In Russia, they are strictly prescription and drug stores, with none of the candy, toiletries, tobacco or sundries that are commonplace in America.

Despite this devotion to pharmacy it reports that Russian drug stores look more like museums than apothecaries. The lighting is murky, by American store standards, and the decor was outmoded here 30 years ago.

Stores are divided into a series of rooms

Credit restraint is part of the battle against inflation.

Federal financing, to help in this battle, must draw more heavily on the individual through encouraging a reduction in his expenditures, not merely causing him to withdraw money from one institution and lending it to the Treasury.

with marble arches, ornate Roman columns, inlaid tile floors. Drugs and accessories are hidden in drawers, or displayed in dark mahogany showcases.

They are geared to big production—they have to be. In Moscow for example, with a population of nearly 5.5 million, there are only 170 drug stores, or one for every 32,350 persons. This is about one-tenth as many drug stores for the population as we have in America.

Necessarily, the stores are overcrowded, and there is at least a two-hour wait for prescriptions. Some Russian drug stores fill 2,000 prescriptions a day.

OUTLOOK FOR AIR LINE FARES



Executives for air lines operating out of virtually all the nations of the Free World met a couple of months ago in Tokyo and out of their conference two things emerged. One is that they would like to raise fares, but don't know just how to go about it; and the other is that they are being forced to do so by the combination of increased expenses in converting into jets and by higher charges placed upon them by governments.

There is something reminiscent of what has happened to the railroads over the last century. Now the railroads are government owned, in most countries.

They would like to raise fares, but international agreements on any subject are difficult to arrange. Then there is the matter of competition, not only between themselves but with other modes of transportation.

With respect to their troubles with governments, they are faced with growing military restrictions. These limit civilian air space, thus forcing detours which add to expense. And to top it off many governments have increased their charges for airports and enroute facilities.

Sir William P. Hildred, Director General of the International Air Transport Association, said that the closing off of large areas of air space has forced commercial jets to operate over longer distances and at lower altitudes reducing their operating efficiency.

"I would remind (governments) that the

GUIDE FOR INVESTORS

Based on recommendations of the Securities and Exchange Commission in cooperation with the New York Stock Exchange, American Stock Exchange, National Association of Securities Dealers and others.

1. Think before buying, guard against all high pressure sales.
2. Beware of promises of quick spectacular price rises.
3. Be sure you understand the risk of loss as well as prospect of gain.
4. Get the facts—do not buy on tips or rumors.
5. Give at least as much thought when purchasing securities as you would when acquiring any valuable property.
6. Be skeptical of securities offered on the telephone from any firm or salesman you do not know.
7. Request the person offering securities over the phone to mail you written information about the corporation, its operations, net profit, management, financial position and future prospects.

more we pay, the less we shall be able to do to maintain their communications and bring to them the benefits of tourism and commerce," Hildred said. "We may not be geese, but we can lay golden eggs."

In reviewing the 1958 performance of the world's airlines, Hildred said preliminary estimates of total operating revenues indicate a "further deterioration." He noted that operations were in the red by about \$160 million or about 3.7 per cent as compared with an operating loss of 1 per cent in 1947.

However, he added that "we can assume that the final results of international operations were closer to the break even point." But, he continued, "even if we have avoided excessive operating losses, we have not been able to accumulate the new additional percentage points of operating profit which are vital to economic health."

He blamed the financial position of the airlines on the heavy expenses last year in converting to the jet age and the costly airline strike and recession in the United States.

Hildred also cited international civil aviation organization statistics showing that while total 1958 air traffic increased the rise was below the rate during past years.

In reviewing the outlook for fares he said that there is limit to which the industry can lower prices to stimulate demand without "massive government subsidies which governments are singularly unwilling to press upon us."

He also predicted that in a year from now jet airliners will account for more than half of the industry's payload capacity.

THREAT TO THE DOLLAR

The dollar has become vulnerable, "The Value Line Investment Survey" observes, and for the first time in more than a generation the American people are faced with financial discipline imposed from outside their own country. When the dollar was impregnable, and the money supply was ample to finance steadily rising costs, increases in wages and prices could be absorbed without inducing a recession.

New from Lederle

a logical combination in appetite control

BAMADEx[®]

meprobamate with dextro-amphetamine sulfate LEDERLE

▼
meprobamate eases
tensions of dieting

▼
d-amphetamine
depresses appetite
and elevates mood

▼
...without
overstimulation

...without
insomnia

...without
barbiturate hangover

Each coated tablet (pink) contains:
d-amphetamine sulfate 5 mg.
meprobamate 400 mg.

Dosage: One tablet taken one-half
to one hour before each meal.



LEDERLE LABORATORIES, A Division of AMERICAN CYANAMID COMPANY, Pearl River, New York

sion and without regard to foreign attitudes. But now it believes cost inflation must be stopped, even at the risk of some deflation and an accompanying business recession.

The United States gold supply, it continues, is shrinking at the rate of \$1 billion per annum. The U. S. is losing gold because of

its investing abroad, its foreign and, most importantly, its shrinking balance of exports. Even if the U. S. contribution to the International Monetary Fund should not be repeated, another billion dollar loss of gold is imminent next year on the basis of the trade balance and the aid policies.

THE BATTLE AGAINST INFLATION

In the last sixty years we have seen a substantial decline in the purchasing power of our dollars. A grave danger of further inflationary price rises continues.

There is no perfect protection against the ravages of inflation. Cures commonly heard include increases in production, thus offsetting higher wage and other costs by more product per man-hour, and reductions in government expenses, many of which come under the heading of what economists call non-productive.

A study on how investors can offset the dangers of inflation, prepared by E. W. Axe & Co., Tarrytown, N. Y. refers to the possession of gold as the best protection in the event of a sharp inflation, but that is prohibited in the United States. There are other ways, however, in which it believes the investor can achieve satisfactory investment results and can limit his losses.

The study compares inflation to a dangerous disease the symptoms of which do not become evident until it has reached an advanced age. It describes periods of inflation in Germany and France after the First World War and ascertains its effect upon different types of property.

GET READY FOR UNCLE SAM

The end of the year is near at hand. That means this is a good time to go over one's portfolio of investments to see what can be done to make the income tax bite as little painful as possible.



By investing in domestic stocks and commodities and in the securities of other countries, and by keeping only a small reserve in cash, the long-term investor would have been able to protect himself against serious loss in both the German and the French inflations. In the German example, the inflation was extreme with the mark becoming worthless.

A short section compares movements of the cost of living and common stock prices in the United States over the past 67 years. It points out that although over a period of one year or a few years, stocks may be subject to fairly wide fluctuations; over longer periods their value in terms of purchasing power is far more stable than the value of money.

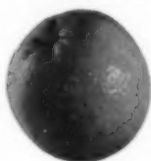
The study includes a chart depicting the relationship of the price of wheat with the gold value of sterling from 1259 to the present day. Wheat prices advanced more rapidly when the gold value of sterling was depreciating most rapidly and when the world gold supply was expanding.

This involves figuring one's capital gains and losses, so as to secure the tax savings provided by the regulations with respect to offsetting gains with losses. There has been no material change in the regulations since last year.



lifesaving technique

for the unborn



includes high citrus intake

*Abortion-prone mothers deliver live babies
in nearly 9 out of 10 pregnancies*

Reporting on 134 pregnancies in 100 habitual abortion patients, Javert* describes a management program that resulted in live deliveries in all but 16 pregnancies.

The previous 95.2 per cent rate of spontaneous abortions was reduced to 11.9 per cent by his comprehensive regimen which includes a high citrus intake (supplying up to 350 mg. of vitamin C daily), supplemented by 150 mg. of ascorbic acid and 5 mg. of vitamin K daily. Javert believes these antihemorrhagic vitamins "serve as a 'never-leak' . . . keeping physiologic decidual hemorrhage from becoming pathologic."

AVERAGE CITRUS INTAKE TO SUPPLY 350 MG. VITAMIN C

	OR	OR
28 oz. orange or grapefruit juice	1 grapefruit 2 oranges 2 tangerines	$\frac{1}{2}$ grapefruit 1 orange 16 oz. orange juice

Florida Citrus Commission Lakeland, Florida



*Javert, C. T.: *Obst. & Gynec.* 3:420, 1954; Cf. Greenblatt, H. B.: *Obst. & Gynec.* 2:530, 1953.

The following examples, and explanations of how it works, have been prepared by the firm of Francis I. duPont & Co. It notes that commingling of net short and long-term capital gains and losses is allowed under the law. Each is considered at 100 per cent. If the net long-term gain exceeds the net short-term loss (including loss carryovers), the balance would be taxed at the regular rates, or limited by the maximum tax, which is 25 per cent of the actual gain.

Capital losses, whether long-term or short-term, are taken into account at 100 per cent. Thus, long-term losses may offset short-term gains on a dollar-for-dollar basis, just as short-term losses may offset long-term gains. Accordingly, \$1 of long-term loss will offset \$1 of short-term gain, or vice versa.

Another feature of the current tax regulation is that if long-term losses exceed short-term gains, the unreduced excess will be offset against other income up to \$1,000 for the current year. The net loss which is not absorbed in this manner will be carried forward as a short-term capital loss, whether arising out of short or long-term operations, for the next suc-

ceeding five years.

The firm gives the following three specific examples:

EXAMPLE 1

Net Long-Term Capital Gain	\$2,000
Net Short-Term Capital Loss	1,500
Long-Term Gain (100%)	\$2,000
Short-Term Loss (100%)	1,500
Net Gain (Long-Term)	\$ 500
50% taken into account to be taxed at ordinary rates (or, to be taxed at a maximum of 25% of actual gain of \$500, or \$125)	\$ 250

EXAMPLE 2

Net Long-Term Capital Loss	\$3,000
Net Short-Term Capital Gain	2,000
Long-Term Loss (100%)	\$3,000
Short-Term Gain (100%)	2,000
Net Loss (deductible from other incomes)	\$1,000

EXAMPLE 3

Net Long-Term Capital Loss	\$3,000
Net Short-Term Capital Loss	2,000
Long-Term Loss (100%)	\$3,000
Short-Term Loss (100%)	2,000
Net Loss	\$5,000
Deductible from current year's income	\$1,000
Carry-over for next five years	\$4,000

LOSES 4,000,000 CUSTOMERS A YEAR

There is an industry that loses 4,000,000 customers a year, yet remains in a healthy financial state. It is the baby food industry, and some examples of its size and importance were supplied in "The Exchange" magazine, official publication of the New York Stock Exchange recently by Dan Gerber, president of Gerber Food Products.

Thanks to the ever-rising birth rate which more than makes up for the loss of old customers, the companies that turn out food for the carriage trade can look to a \$400 million business in the next 10 years, Mr. Gerber estimates. That's a whopping increase of \$100 million over present annual retail sales of baby foods.

The main reason for all the optimism is the surge of new births every year. In 1958, Mr. Gerber points out, 4,250,000 babies were

born in the United States. By 1969, the birth rate is expected to reach 5,200,000—a 22 per cent increase. And the U. S. Bureau of Census foresees a crop of 5,800,000 new babies by 1975.



But new babies alone aren't the only reason for the excellent sales prospects for the baby food business, Mr. Gerber says.

Babies are eating more baby food, for one thing. In the last 10 years, consumption per baby has increased 25 per cent for strained foods and 50 per cent for the junior foods for

PROVEN EFFECTIVE FOR THE TENSE AND NERVOUS PATIENT



“There is perhaps no other drug introduced in recent years which has had such a broad spectrum of clinical application as has meprobamate.* As a tranquilizer, without an autonomic component in its action, and with a minimum of side effects, meprobamate has met a clinical need in anxiety states and many organic diseases with a tension component.”

Krantz, J. C., Jr.: The restless patient — A psychologic and pharmacologic viewpoint.
Current M. Digest
25:68, Feb. 1958.

Miltown®

the original meprobamate, discovered and introduced by



WALLACE LABORATORIES, New Brunswick, N. J.

older babies. Mr. Gerber expects these rates to lessen somewhat but still looks forward to a 20 per cent increase in strained foods and a 40 per cent hike in the junior line in the next 10 years.

Biggest consumer of baby foods are youngsters in the metropolitan New York area. If all babies in the country ate as much, Mr. Gerber says hopefully, total baby food usage would increase nearly 75 per cent.

ACCENT ON EARNINGS

Traditionally, investors have preferred "Bird-in-the-bush" earnings, but these are changing times, notes Prentice-Hall.

As investors become more sophisticated they are putting the accent on earnings—current and future—rather than on dividends. As the combined burden of Federal, state and local

taxes becomes heavier, more investors are realizing that earnings are the more valuable.

"When you own a stock, you get not only its current dividend return," it adds, "but also the potential . . . long-term growth in earnings due to the use of both retained earnings and depreciation reserves."



MORE CROPS, FEWER DOLLARS

Farmers are turning out crops and livestock this year at what may prove to be a record-busting rate, but they are harvesting fewer dollars than last year.

Realized 1959 net income in agriculture has been estimated by the Agriculture Department at about \$11,500,000,000 on the basis of returns for the first three quarters of the year. This was a decline of 12 per cent from the \$13,100,000,000 net income recorded last year.

Department economists hoped the picture

would look a bit brighter when income figures for the full year are in. This year's third quarter pulled the annual estimate down sharply. In the October-December fourth quarter, however, farmers market their cotton and corn crops, both larger than last year. Reasons for the drop in income this year:

Farm prices are down. For the first eight

The information set forth herein was obtained from sources which we believe reliable, but we do not guarantee its accuracy. Neither the information nor any opinion expressed constitutes either a recommendation or a solicitation by the publisher or the authors for the purchase or sale of any securities or commodities.



*in Turkey,
it's called the 'Turkey trot'*



diarrhea by any name

GASTROENTERITIS
BACILLARY DYSENTERY
PARADYSENTERY
SALMONELLOSIS
DIARRHEA OF THE NEWBORN
NONSPECIFIC DIARRHEA
"SUMMER COMPLAINT"

usually responds rapidly to

Cremomycin[®]

NEOMYCIN-SULFASUXIDINE_g-KAOLIN-PECTIN SUSPENSION

for *rapid* relief of virtually all diarrheas

*fruit-flavored, readily accepted by patients of all ages**

Neomycin—rapidly bactericidal against most intestinal pathogens, but is relatively ineffective against such diarrhea-causing organisms as *Shigella*.

Sulfasuxidine_g—an ideal adjunct to neomycin because it is highly effective against *Shigella* and certain other neomycin-resistant organisms.

Kaolin and Pectin—coat and soothe the inflamed mucosa, adsorb toxins, help reduce intestinal hypermotility, help provide rapid symptomatic relief.

*For infants, CREMOMYCIN may be administered in the regular bottle feeding since its fine particles easily pass through a standard nursing nipple.



MERCK SHARP & DOHME, DIVISION OF MERCK & CO., INC., PHILA. 1, PA.

CREMOMYCIN AND SULFASUXIDINE (SUCCINYLSULFATHIAZOLE) ARE TRADEMARKS OF MERCK & CO., INC.

months of 1959, prices averaged three per cent below last year. In Mid-September, prices were six per cent below a year ago.

Farm costs are up. Mid-September reports showed costs one per cent above the same period a year ago, though slightly below the higher levels of earlier 1959 months.

The Soil Bank Acreage Reserve, an important factor in last year's farm income upsurge, was not in operation this year. As a result, total government payments to farmers (not including price support loans) fell from \$423 million in January-July, 1958, to \$275 million in the same period this year.

A BOATING WE GO

This is the leisure age, we hear people say as they observe the shorter work week and the volume of savings available to a large percentage of our population which they can spend on cars, boats, travel, athletic goods, etc.

The boat people are about as enthusiastic about 1960 prospects as any we have encountered. Thomas B. Kalbfus, director of sales and advertising for Johnson Motors, a major producer of outboard engines, predicts that recreational boating will produce its largest dollar volume in history in the new year. He based his forecast on "the generally healthy tone" of the nation's economy and a "steadily mounting boom" in family boating.

"For concrete evidence," he said, "manufacturers don't have to look very far from home. Our 1960 Sea-Horse line has just be-



come available, for example, and dealers already have placed 50 per cent more orders than they had at this time last year."

By the end of 1958, a whopping \$2,085,000,000 was spent by Americans at the retail level for new and used boats, engines, accessories, fuel, docking and other items. "It's pretty plain by now that the industry's 1959 volume has topped this figure to set another all-time high, and there's every indication the trend will continue even higher during 1960."

1970's PROSPERITY

David Rockefeller, vice chairman of the Chase Manhattan Bank, predicted at a recent finance conference of the American Management Association that by 1970 the United States will have a gross national product of \$750 billion. That's half again above today's level. All we need to achieve that result is to have a growth rate of slightly above 4 per cent a year.

"I might point out," he added, "that a growth rate of 4 per cent is greater than our country has normally experienced in the past. Over the last century, lumping good years with bad,

our rate of advance has actually been closer to 3 per cent on the average."

He told the meeting of business and financial executives that the key to faster economic growth during the 1960's lies in increased productivity by the individual—"a portent in turn which is born of the marriage between science and business management. Here I am not suggesting that our economy will take off on a new tack; I am merely assuming that American business will have the ingenuity to continue to move forward in the coming decade as it has since World War II."

IN HEARTBURN OF PREGNANCY, PATIENTS SAY...
TASTY IS THE WORD FOR

titralac®

TABLETS
 and
 "teaspoon dose"
 LIQUID

UNIQUE ANTACID WITH MILK-LIKE ACTION

TITRALAC is being widely prescribed in heartburn of pregnancy, simple hyperacidity, and peptic ulcer because of these outstanding features:

- creamy, mint flavor...no chalky taste
- acts in seconds...lasts for hours
- non-constipating...no acid rebound

TITRALAC is effective in small doses. One teaspoonful TITRALAC Liquid approximates 2 tablets which contain 0.38 Gm. glycine and 0.84 Gm. calcium carbonate.

ACID NEUTRALIZING POWER

only 1 teaspoonful

or

2 tablets



ALSO WITH A SPASMOLYTIC...

titralac-sp

(Titralac Formula + 0.5 mg. famotidine methiodide)



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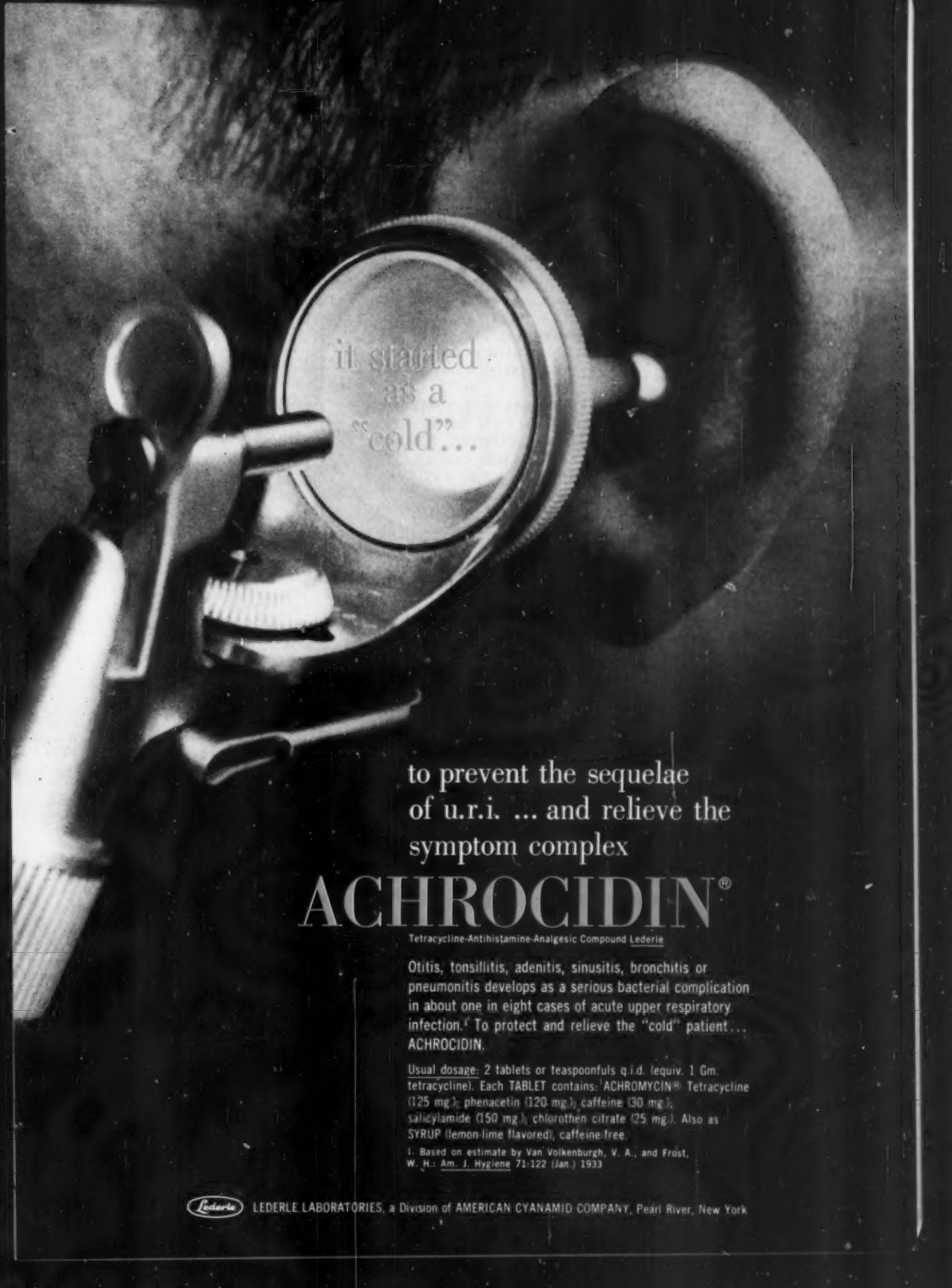
MANUFACTURERS OF NEUTROPID
 FOR AMERICAN DRUGGISTS

OPT. N. 800. T.S. PAT. OFF.

**CURRENT
READING
ON FINANCIAL
SUBJECTS**

Wall Street firms are glad to supply those who are interested with views on various industries and companies. You can do us a favor if you mention Medical Times as the source of your information. A partial list of such literature that has come to hand recently follows.

SUBJECT	FIRM	FIRM'S NEW YORK ADDRESS
Natural Gas Stocks	Shearson, Hammill & Co.	14 Wall St.
Continental Steel	Paine, Webber, Jackson & Curtis	25 Broad St.
Continental Can	Hardy & Co.	30 Broad St.
Budd Company	Thomson & McKinnon	2 Broadway
Otis Elevator	Orvis Brothers & Co.	15 Broad St.
Owens Yacht	Schweickart & Co.	29 Broadway
Philips Electronics, Inc.	Evans & Co.	300 Park Ave.
Rare Metals	Harris, Upham & Co.	120 Broadway
Penn-Dixie Cement	H. Hentz & Co.	72 Wall St.
Strong Cobb Arner, Inc.	Cohen, Simonson & Co.	25 Broad St.
Bailey Selburn Oil & Gas	Reynolds & Co.	120 Broadway
International Business Machines	Carl M. Loeb, Rhoades & Co.	42 Wall St.
Ingersoll Rand	Francis I. duPont & Co.	One Wall St.
Coral Ridge Properties, Inc.	Cruttenden, Podesta & Co.	209 So. LaSalle St. Chicago 4, Ill.
British Equities	Bear, Stearns & Co.	One Wall St.
U.S. Rubber	Blair & Co.	20 Broad St.
Pauley Petroleum	William R. Staats & Co.	640 S. Spring St. Los Angeles 14, Cal.
Minerals & Chemicals Corp.	Edwards & Hanley	41-64 Main St. Flushing 55, N. Y.
Chicago Pneumatic Tool	Montgomery, Scott & Co.	120 Broadway
Electric Storage Battery	Walston & Co.	74 Wall St.
McCrary-McLellan Stores	Gude, Winmill & Co.	One Wall St.
Mergenthaler Linotype	Herzfeld & Stern	30 Broad St.
Automobile Industry	Goodbody & Co.	2 Broadway
Aldens, Inc.	Grimm & Co.	2 Broadway
Reheis Co., Inc.	Boenning & Co.	115 Broadway
Borg-Warner	Purcell & Co.	50 Broadway
Allis-Chalmers Mfg.	Shields & Co.	44 Wall St.
Warner & Swasey	Hayden, Stone & Co.	25 Broad St.
Westinghouse Electric	Eastman Dillon, Union Securities & Co.	15 Broad St.
Cosmetics Industry	Burnham & Co.	15 Broad St.
Retail Trade	E. F. Hutton & Co.	61 Broadway
Libbey-Owens-Ford Glass	Fahnestock & Co.	65 Broadway
Kaiser Industries	Bregman, Cummings & Co.	74 Trinity Place



it started
as a
"cold"...

to prevent the sequelae
of u.r.i. ... and relieve the
symptom complex

ACHROCIDIN[®]

Tetracycline-Antihistamine-Analgesic Compound Lederle

Otitis, tonsillitis, adenitis, sinusitis, bronchitis or pneumonitis develops as a serious bacterial complication in about one in eight cases of acute upper respiratory infection.¹ To protect and relieve the "cold" patient... ACHROCIDIN.

Usual dosage: 2 tablets or teaspoonfuls q.i.d. (equiv. 1 Gm. tetracycline). Each TABLET contains: ACHROMYCIN[®] Tetracycline (125 mg.); phenacetin (120 mg.); caffeine (30 mg.); salicylamide (150 mg.); chlorothen citrate (25 mg.). Also as SYRUP (lemon-lime flavored), caffeine-free.

1. Based on estimate by Van Volkenburgh, V. A., and Fröst, W. H.: *Am. J. Hygiene* 71:122 (Jan.) 1933



LEDERLE LABORATORIES, a Division of AMERICAN CYANAMID COMPANY, Peñari River, New York

THE FAVORITE FIFTY

	\$ VALUE (MILLIONS)	NO. OF INV. COS. HOLDING	NUMBER OF SHARES HELD	% OUTSTANDING STOCK HELD BY INV. COS.
INTERNATIONAL BUSINESS MACHINES CORPORATION	350	85	781,700	4.29
UNITED STATES STEEL CORPORATION	251	85	2,521,400	4.68
TEXACO, INC.	217	95	2,698,900	4.62
GOODYEAR TIRE & RUBBER COMPANY	178	51	1,230,200	11.37
STANDARD OIL COMPANY (New Jersey)	171	111	3,303,900	1.54
DU PONT (E.I.) DE NEMOURS & COMPANY	146	84	588,000	1.29
AMERICAN TELEPHONE & TELEGRAPH COMPANY	141	69	1,761,200	0.74
INTERNATIONAL PAPER COMPANY	136	53	1,130,600	8.67
GENERAL MOTORS CORPORATION	133	88	2,580,200	0.91
REPUBLIC STEEL CORPORATION	130	64	1,703,800	10.87
BETHLEHEM STEEL CORPORATION	127	61	2,266,300	5.01
GULF OIL CORPORATION	126	75	1,145,600	3.54
GENERAL ELECTRIC COMPANY	125	80	1,553,500	1.77
ARMCO STEEL CORPORATION	119	55	1,587,800	10.73
ROYAL DUTCH PETROLEUM COMPANY	116	83	2,731,200	3.99
STANDARD OIL COMPANY OF CALIFORNIA	109	65	2,054,700	3.25
FIRESTONE TIRE & RUBBER COMPANY	108	34	756,400	8.79
INTERNATIONAL NICKEL CO. OF CANADA, LTD.	96	65	987,200	6.77
FORD MOTOR COMPANY	94	53	1,261,700	2.30
UNION CARBIDE CORPORATION	92	69	640,200	2.13
CONTINENTAL OIL COMPANY	92	56	1,659,300	8.09
MINNESOTA MINING & MANUFACTURING CO.	89	39	596,300	3.52
REYNOLDS METALS COMPANY	88	38	858,100	7.67
WESTINGHOUSE ELECTRIC CORPORATION	85	61	899,500	5.27
RADIO CORPORATION OF AMERICA	85	58	1,247,100	8.89

THE FAVORITE FIFTY

Investors and traders alike watch the investment preferences of the big closed and investment companies and the mutual funds, not because their sales and their purchases are always the wisest but because they employ professional management and therefore the chance of their choices being good ones is greatly enhanced.

A way to judge the flow of their funds is the so-called "Favorite Fifty," compiled twice a year by the firm of Vickers Associates, Inc. It breaks down the dollar value and shows the most popular fifty listed stocks in the opinion of 294 investment companies which have assets of some \$22 billion. It does not list stocks that are held by less than fifteen investment companies, and it does not include cases where

large individual blocks are held for control.

The market value of the favorite fifty is about \$5,100,000,000 and represents about 23 per cent of the total assets of the investment companies.

The current report lists the fifty, in order of dollar preference, as of June 30, 1959. It shows the number of dollars the investment companies have in each stock, the number of investment companies that have an interest in each stock, the number of shares held and the percentage that this represents.

The June 30 report shows six companies that were not in the December 31, 1958 compilation, namely Ford Motor, Westinghouse Electric, Monsanto, General Telephone, Deere and Dow Chemical. The six crowded out to

	\$ VALUE (MILLIONS)	NO. OF INV. COS. HOLDING	NUMBER OF SHARES HELD	% OUTSTANDING STOCK HELD BY INV. COS.
MERCK & CO.	84	49	996,300	9.42
AMERADA PETROLEUM CORPORATION	81	45	939,800	14.89
SOUTHERN COMPANY (THE)	77	48	2,071,600	9.25
EASTMAN KODAK COMPANY	77	41	894,400	2.33
TEXAS UTILITIES COMPANY	76	47	1,102,200	8.78
SUPERIOR OIL COMPANY (CALIFORNIA)	76	25	43,100	10.21
MONSANTO CHEMICAL COMPANY	75	55	1,412,000	6.33
PFIZER, (CHAS.) & CO., INC.	73	39	1,954,200	12.13
ALLIED CHEMICAL CORPORATION	73	43	621,900	6.26
NATIONAL LEAD COMPANY	72	47	574,600	4.93
CENTRAL AND SOUTHWEST CORPORATION	70	42	1,114,500	10.83
FLORIDA POWER & LIGHT COMPANY (FLA.)	69	42	1,481,200	11.22
STANDARD OIL COMPANY (INDIANA)	68	55	1,468,200	4.10
CATERPILLAR TRACTOR COMPANY	67	42	610,700	6.75
UNITED STATES GYPSUM COMPANY	67	28	640,300	8.00
YOUNGSTOWN SHEET & TUBE COMPANY	67	41	517,900	14.94
SHELL OIL COMPANY	67	40	875,700	2.89
GENERAL TELEPHONE & ELECTRONICS	66	45	952,500	4.59
DEERE & COMPANY	63	55	1,047,400	15.63
GOODRICH (B.F.) COMPANY	62	40	634,000	7.06
LOUISIANA LAND & EXPLORATION	61	38	1,120,000	12.49
SOUTHERN RAILWAY COMPANY	61	43	1,036,500	15.36
ALUMINUM, LTD.	61	53	1,734,900	5.73
DOW CHEMICAL CO.	61	50	675,200	2.58
GENERAL PUBLIC UTILITIES CORP.	55	49	2,225,700	10.24

make place for the newcomers were Sinclair, Parke Davis, Socony, Cities Service, Phillips Petroleum and American Electric Power.

The relative position of any one stock in the standing is affected both by the buying and selling of the investment companies, and by the advance or decline in each one's market value.

As against the compilation made at the close of 1958, seven stocks had improved their rating by June 30 due to buying. They were International Paper, General Motors, General Electric, Armco, International Nickel, Radio Corp., and Southern Co. Four that improved their position due to a combination of buying and the market were DuPont, Union Carbide, Allied Chemical and Caterpillar. Two that im-

proved because of their higher prices in the market were Minnesota Mining and Reynolds Metals.

Five had their preference rating lowered because of selling and their lower market price. They were Standard Oil of California, Amerada, Pfizer, Southern Railway and Aluminium, Ltd. Twelve that got lower ratings because of the market included Gulf Oil, Royal Dutch, Merck, Texas Utilities, Superior Oil, Central & Southwest Corp., Florida Power & Light, Standard Oil of Indiana, United States Gypsum, Shell Oil, Louisiana Land and General Public Utilities.

Following is the Vickers Associates list of the favorite fifty stock investments of the funds as of June 30, 1959.

THE NEED FOR CAPITAL

A major ingredient of our capitalistic system is the willingness of the American people to supply the capital necessary to keep the economy on an expanding basis, says Vance, Sanders & Co.

It has been estimated, the firm points out, that by 1965 we will be adding some 1,500,000 people to our work force, and no matter what

these people do for a living they will need some kind of equipment to work with.

Vance, Sanders notes that this equipment will require an annual outlay of upwards of \$25 billion.

"It should be kept in mind that this is just the capital outlay for the new workers each year," it adds.



Inquiries are received from a number of investors asking for information regarding specific securities. Answers are presented here on the basis of information received from recognized analysts and represent their considered opinion.

RCA—It must no longer be regarded merely as a radio and television company as it has moved strongly into the expanding field of communications, data processing, industrial controls and military electronics. A convenient way to invest in its future is by buying its convertible debentures which, at recent prices, provided a yield of 3 per cent, which is higher than that on the common. These bonds can be converted into common at \$50 a share until their maturity. RCA is one of the best single investments in the electronics field.

Diamond Alkali—It is a major chemical company with a diversified line, manufacturing basic chemicals for various industries including the chemical, agricultural chemical, plastics and petroleum fields. It should be benefited by its entrance into organic chemicals, such as plastics. Recently it has been selling at a some-

what more conservative price/earnings ratio than others in its field.

Warren Brothers—It is a leading paving contractor and stands to benefit from highway building. From 1951 to 1958 it improved its per share earnings 150 per cent and with road building in an uptrend it should do better. Even in a depression the tendency is to continue to build roads, in order to spread employment.

Consolidated Freightways—It is the largest common truck carrier in the United States and the speculation here is how it may make out after entering the field of manufacturing truck, trailer, railroad cars and equipment, through its acquisition of a controlling interest in Youngstown Steel Car Corporation.

H. J. Heinz—About four-fifths of its net income comes from foreign subsidiaries. Domestically its progress has been slower. It had been paying dividends since 1911 and recently

has been selling at a moderate price/earnings ratio. Steps are being taken to improve its domestic earnings picture. The stock is mentioned among those considered in the Street to be stock split candidates.

Sheraton Corporation—It is one of the companies that is helped by America's changing habits. Companies that cater to leisure time are others. Sheraton has reflected the fact that more people are travelling for business and pleasure. Early this year its gross was up better than 300 per cent over the 1950 figure. A key to its success has been its continual expansion. Aside from hotel operations it owns 80 per cent of the common of Thomson Industries, a producer of metal stampings for the automobile and home appliance industries, and copper wire for the electronics industries.

Maryland Casualty—Since late in 1955, all fire and casualty companies have had difficulties stemming from hurricanes on the Eastern Seaboard, mid-west tornadoes, floods and fires on the west coast, rising fire damage, greater accident frequency and higher automobile claims. Maryland's sales, or net premiums written, have been rising and probably will be \$135,000,000 this year. Underwriting is improving and it received rate increases in 1959. A return to anything like normal should be reflected quickly in the stock, which is selling at a reasonable level.

Consolidated Natural Gas—It has more than doubled its operating revenues and net income over the last ten years. It was injured somewhat by the steel strike and earnings this year are estimated at \$3.10 a share against \$3.14 in 1958, but the latter was on almost 10 per cent fewer shares. It is a high grade stock and has a favorable long term outlook.

Burlington Industries, Inc.—In point of sales it is the largest organization in the textile field. The industry has suffered from excess capacity and competitive pricing but of late prices have displayed more firmness and plant modernization is helping to improve profit margins. Burlington is doing as well as the others in its field

and there is a possibility the dividend can be increased this year.

General Cigar—It earned \$2.11 a share in 1958 and should do better this year. It has a satisfactory financial position and its debt is moderate. Thus far the cigar industry has not been hurt by the cancer scare controversy. Its low-priced cigars have been enjoying a good demand and sales gain has been running ahead of that of the industry as a whole.

Richardson Co.—It is a successful plastic fabricator and has shown a profit each year since 1932. Its financial position is strong. Company added a new laboratory last year and is a strong believer in productive research.

American Viscose—The stock still has appeal although it has enjoyed a good advance the last few months. In the first half it upped its sales to \$126,710,000 against \$96,391,000 in the like period of 1958, and net per share jumped to \$1.53 from 8 cents. The recovery of the automobile industry has been a major help and the company is also enjoying a better demand for its Viscose textile yarn. Its balance sheet indicates a sound financial condition.

Standard Packaging Co.—It has a youthful management which is aggressive in developing new products. It hasn't been paying any dividends as the company is conserving its cash for expansion, but a dividend before the end of the year is a probability. As an investment it looks like a better bet for those who are looking for capital gains rather than for yield. Prospects are good and it is counting on a new plastic bag for motor oil, designed to replace cans, and plastic-coated punch cards to take the place of present machine cards.

J. I. Case Co.—The stock is regarded as speculative but its recent progress is attracting attention. Diversification has helped its sales and earnings, and a resumption in dividends, suspended in 1954, seems probable. It is expanding its operations in Canada and is offering a vastly improved line of equipment.

NEW PERMITIL[®]

Fluphenazine dihydrochloride

the promise of
in everyday office practice

safely control the "target symptoms" of
emotional stress with the "smallest effective" dosage
(0.25 mg. b.i.d.) of any neuroleptic* agent





the premise

Emotional tension states, psychosomatic disorders and similar neuroses constitute a major portion of the clinical conditions seen today in everyday office practice. Whether the emotional stress is in the form of a behavioral disturbance characterized by anxiety, anxiety accompanying specific organic disorders or chronic conditions in which anxiety is a contributing factor, the aim in therapy is the same: to alleviate emotional stress and enable the patient to cope with life's problems more effectively and to live more comfortably.

The choice of an agent to overcome the patient's particular "target symptoms" of emotional stress, without impairing alertness or productivity, or producing undesirable reactions, is often a difficult and haphazard task. Yet, one may be guided by the fact that there is a correlation between the dosage of a phenothiazine derivative and the frequency and the type of side effects it causes, *the less of the drug needed to achieve therapeutic results, the less likely are side effects.* Thus, the lower the effective dosage of a phenothiazine derivative, the lower the incidence of unwanted side reactions and, conversely, the higher the level of therapeutic response.

Now, with PERMITIL, the physician may prescribe a neuroleptic anti-anxiety agent of extraordinary potency and effectiveness, at unprecedented low dosage, with minimal side effects—features that markedly distinguish this compound from other anti-anxiety agents.



the promise

Extensive clinical studies have established important psychopharmacologic advantages for PERMITIL. The effective dosage of PERMITIL (0.25 mg. b.i.d.) is the lowest safe dosage of any anti-anxiety agent. Side effects associated with dosage not exceeding 1 mg. per day have been uncommon and transitory.

Unlike other phenothiazines, PERMITIL alleviates symptoms of anxiety, tension, agitation and emotional unrest *without* depressant effect, impaired alertness or slowed intellectual function.

Furthermore, anxiety-induced symptoms of apathy, indifference, listlessness, reduced initiative and chronic emotional fatigue (often refractory to other phenothiazines) frequently respond to administration of PERMITIL. Thus, a *significantly wider spectrum* of "target symptoms" amenable to therapy is an outstanding property of PERMITIL.

Onset of action with PERMITIL is rapid and patients soon become more relaxed and less tense. The patient regains a more confident outlook and normal drive is restored.

PERMITIL has an inherently long duration of effect. This makes possible a particularly convenient and easy-to-remember schedule of morning and evening dosage.

The promise of PERMITIL in everyday office practice, then, is the more effective control of the "target symptoms" of emotional stress with the lowest safe dosage of any anti-anxiety agent.

*neuroleptic—

"The term 'neuroleptic' implies a specific effect of a pharmacologic agent on the nervous system. It refers to a mode of action on affective tension that distinguishes this response from that to hypnotic drugs. The terms 'ataraxics' and 'tranquilizers' are descriptively impressive, but fail to convey what seems psychopharmacologically unique."¹

PERMITIL[®]

to fit the promise to your office practice

"The pharmacologic management of psychiatric disorders challenges the therapeutic acumen of the physician. He must choose a drug which will produce remission as quickly as possible with the least risk."² In this regard, PERMITIL represents an advance over its predecessors² because of its higher level of therapeutic response and low order of side reactions.

The adjunctive use of PERMITIL by the family physician enables him to provide effective pharmacotherapy for many of the emotional symptoms which constitute a major portion of patient disability in everyday office practice.

The Areas of Usefulness for PERMITIL:

- Behavioral disturbances characterized by anxiety, tension, apprehension and instability, as well as depressive symptoms associated with anxiety states
- Emotional stress accompanying organic disorders and complicating recovery from, or acceptance of, the underlying condition
- Chronic disorders in which anxiety and stress are contributing factors, e.g., gastrointestinal dysfunctions, neurodermatitis, asthma, premenstrual tension, arthritis, hypertension and tension headache

How to Prescribe PERMITIL:

PERMITIL has an inherently long duration of effect so that it need be given only twice a day making possible an easy-to-remember morning and evening dosage program. The lowest dose of PERMITIL that will produce the desired clinical effect should be used.

The recommended dose for most adults is one 0.25 mg. tablet twice a day

This may be increased to two 0.25 mg. tablets twice a day if required. Total daily dosage in excess of 1 mg. should be employed only in patients with relatively severe symptoms who have had a trial of lower dosages first that were well tolerated but were only partially effective. In such patients, the total daily dose may be increased to a maximum of 2 mg., given in divided amounts. (Dosage for children has not been established.)

Side Effects—Infrequent; Contraindications—Minimal:

At the recommended dosage of PERMITIL, side effects have been observed infrequently or not at all. PERMITIL, as with other phenothiazines, is contraindicated in severely depressed states.

Available in Tablets of 0.25 mg.; bottles of 50 and 500.

References: 1. Freyhan, F. A.: *Psychopharmacology Frontiers*, Boston, Little, Brown and Co., 1959, p. 7. 2. Ayd, F. J.: *The current status of major tranquilizers*, in press.



WHITE LABORATORIES, INC., Kenilworth, New Jersey



R

Prescription
For
Travel

Pan Am Photo



EUROPEAN TOURS FOR THE FAMILY PHYSICIAN

TOUR INFORMATION

For further information about the two tours for physicians described in this article, write to:

SPECIAL INTEREST TOURS, INC.
Dept. MT
Onondaga Hotel Building
Syracuse 2, New York

Two tours especially designed for the physician and his family are scheduled for next spring and summer. Each combines a well-planned European trip with an opportunity to attending professional meetings.

Since its inception two years ago, the aim of this department has been to provide practical travel information for the readers of MEDICAL TIMES. In line with this policy, we have published articles dealing with such aspects as customs and passport information; prices of transportation, meals, accommodations; helpful travel books; trips for the fisherman and hunter.

This month we call to your attention two 1960 European tours especially planned for physicians and their families. Each combines a well-rounded trip with an opportunity to participate in professional meetings. The tours have been set up by Special Interest Tours, Inc., of Syracuse, N. Y., an agency with long experience in catering to groups—from hotel executives to physicians—with particular interests. This agency is a member of the American Society of Travel Agents, the trade association of the industry and an organization with exceptionally high requirements for membership.

Both tours will be conducted in top travel seasons, the spring and summer. *If you want to cut eight days' travel time from either tour, you can do so by crossing the Atlantic by air instead of ship.*

ORALLY EFFECTIVE THERAPY
OF DERMATOMYCOSES

GRiFULV

PENETRATES THE KERATIN BARRIER
FROM THE INSIDE

IN[®]

Griseofulvin

Since topical agents are unable to reach pathogenic fungi lodged deep in the keratin of the skin, hair or nails, a systemic therapy for superficial mycoses has been a long-sought therapeutic goal. GRIFULVIN dramatically achieves that goal.

Absorbed from the gastrointestinal tract, GRIFULVIN is deposited in the keratin of the skin, hair or nails in fungistatic amounts. Organisms are thus held in check while the keratin containing viable but inactive fungi is gradually exfoliated and replaced by noninfected tissue.

- Tinea corporis usually clears in 2 to 4 weeks; itching stops in 3 to 5 days.
- Tinea pedis improves in 1 to 2 weeks; complete clearing may require 3 to 6 weeks.
- Tinea capitis improves in 2 to 3 weeks; is usually cured in 3 to 5 weeks.
- Onychomycosis (tinea unguium) — finger-nails clear in 3 to 4 months; new normal growth is seen earlier; toenails require longer treatment.
- Oral GRIFULVIN appears to have a very low level of toxicity.

Literature concerning method of administration and dosage is available upon request.

Supplied: 250 mg. scored tablets, colored aquamarine, imprinted McNEIL, bottles of 16 and 100.

McNEIL

McNeil Laboratories, Inc • Philadelphia 32, Pa.



Belgian Tourist Bureau

TRAVEL

SOME PLACES OF INTEREST ON PHYSICIANS' TOURS

A few of the highlights of the two European tours for doctors are shown here. At left is Brussels' magnificent town hall which dates back to 1449. Opposite page: Like bowlers and umbrellas, pagentry is an integral part of the London scene; shown are the Household Cavalry coming down the Mall. A side-tour from London takes you to the rustic Shakespeare country where Ann Hathaway's Cottage (having its roof rethatched) is a main point of interest. On the far right is a photo of Montmartre, a section of quaint, crooked streets in Paris that has long been the haven of the artist and writer. The dome of Sacre Coeur is seen in the background.

Where and When

The first leaves New York on April 20, 1960, and returns May 31. It includes three days in Geneva, Switzerland, to enable you to attend the World Health Assembly. The second tour leaves New York August 10 and returns September 20. The professional meeting on this itinerary is the International Congress of Internal Medicine, to be held at Basle, Switzerland, from August 24 to 27.

Basle is of added interest to the physician as it is the site of the home offices and laboratories of four leading ethical pharmaceutical houses: Ciba, Geigy, Roche and Sandoz. It would be an easy matter to arrange for visits with these companies.

Similarly, if there are hospitals or research centers in France, Germany, Switzerland, Italy, Austria or England that you would like

to visit, the tour operators will be glad to assist you in making the necessary arrangements.

Itineraries

The two tours have similar itineraries as they are designed to give you and your family a comprehensive view of the outstanding attractions in England and on the Continent. Countries to be visited include England, Belgium, France, Switzerland, Italy, Austria and Germany. A list of the highlights would fill many pages. Suffice it to say that the tours will give you ample time to see the many things that London, Paris, Rome, Venice, Geneva and other cities have to offer.

An outstanding feature of both tours is a visit to Oberammergau, Germany, the town in the Bavarian Alps that is famous for its Pas-



British Travel
Association Photos



Pan Am Airways

sion Play. Presented only once each decade, this spectacle can be seen this year, 1960.

Advantages of Group Travel

The popularity of special interest group travel has steadily increased in the past few years. Not only does this type of travel give you a chance to rub elbows with people whose range of interests is similar to yours, but it also facilitates travel arrangements and takes much of the responsibility from your shoulders.

For instance, when you debark in England on these tours you will be met by a representative who will assist you through customs and see to it that you get on the proper train for London. Also, the most popular sight-seeing tours within cities and into the countryside are all part of your overall tour. This saves you the trouble (and extra expense) of

making hurried reservations upon arrival. Thus you know that on your second day in London you will leave for a conducted tour through the Shakespeare Country, with lunch awaiting you at Stratford-on-Avon. Similar arrangements are set up all along the route of your European tour.

Of course, should you desire to travel independently, such arrangements can be made.

First-Class Travel

The ship designated for crossing the Atlantic is the Cunard Lines' *Queen Mary*. (Or you can go by plane, as mentioned earlier.) Rail and boat transportation in Europe is all first class, with taxi service provided to and from air and rail terminals.

● Hotel accommodations for these tours are designated "superior." This means not

only hotels with outstanding reputations, such as the Hotel Grosvenor House in London or the Palace in Brussels, but excellent rooms with private bath.

● Your choice of travel crossing the Atlantic determines the price of the tour. Complete rates for either tour are as follows:

First class steamship accommodations, \$1835.

Cabin class steamship accommodations, \$1595.

First class air travel, \$2050.

Economy class air travel, \$1611.

● If these tours interest you, it is advised that you do not delay in contacting the tour operators. Seasoned travelers will tell you that bookings to Europe are not easy to get when the prime travel season draws near, and that the superior hotels are the first to be booked solid.

ONCE IN A DECADE

The Passion Play in Oberammergau, Germany, is perhaps the outstanding tourist attraction offered in Europe during the 1960 season. Presented only once each ten years, the play is an undertaking that involves almost all of the inhabitants of the Bavarian town. There are 152 speaking roles in the play, and the actors are chosen by the 24 village electors. In many ways, this moving spectacle has no counterpart elsewhere.

For further information write Special Interest Tours, Inc.—their address appears in box on the first page of this article—and you will receive a prompt reply.

Florida Gardens

Synonymous with Florida's sun-warmed beaches, blue waters and palm trees are the acres of winter-blooming flowers that splash the state with color. These botanicals range from the large tropicals to the exquisite camellias and orchids.

About a score of especially outstanding gardens will be abloom this winter. These are open to the public, with an admission charge in some cases. In addition to the subtropical ornamentals, many of the gardens feature other varied attractions such as brilliantly colored birds, carillon recitals, boat tours and vast garden estates.

Newest of the Florida gardens is Busch Gardens in Tampa. This beautifully landscaped 15-acre park offers winding paths and little lakes set amid a showcase of palms, plants and flowers. Also featured are a rare tropical bird aviary, dwarf village and a trained bird show. Open 9 A.M. to 5 P.M. Tuesday through Saturday, and 1 to 6 P.M. Sunday. Tour time is one

to two hours. No admission charge.

Caribbean Gardens is two miles north of Naples and has 30 acres of pine woods and cypress hammock enriched by choice plantings of palms, flowering trees, shrubs, rare orchids and many botanical curiosities. Highly colored tropical birds roam throughout the gardens. Open daily, tour time is about two hours. There is an admission charge.

Well known Cypress Gardens at Winter Haven needs very little description. Rare and exotic plants have been gathered from many parts of the earth. Water ski shows and boat rides are featured. Open daily, and admission charged.

Thomas A. Edison Winter Home and Gardens at Fort Myers offers a collection of plants and shrubs from around the world collected by America's great inventor. Guided tours are available through the Edison Home and Laboratory. Open daily from 9 A.M. to 4 P.M. Admission charged.

the decorative jar makes a therapeutic difference

The FILIBON jar is a handsome and handy reminder for everyday prenatal nutritional support. You can be sure she will be reminded of her FILIBON-a-day . . . and that the up-to-the-minute formula covers nutritional defenses throughout pregnancy.

FILIBON provides ferrous fumarate, an iron well-tolerated by even the most easily upset patients. Each small, dry-filled capsule also includes vitamin K and AUTRINIC® Intrinsic Factor Concentrate that enhances, never inhibits, B₁₂ absorption. For complete formula see Physicians' Desk Reference, page 688.

LEDERLE LABORATORIES, a Division of AMERICAN CYANAMID COMPANY, Pearl River, New York



Phosphorus-free FILIBON® Prenatal Capsules Lederle

TRAVEL

Largest tropical botanical garden in the world is Fairchild Tropical Garden in Miami. Tour time in this 85-acre garden is unlimited. Plants run the gamut from the more than 300 species of palms to thousands of tropical trees, shrubs and vines. Guided tram tours. Open daily from 9 A.M. to sunset. No admission.

Cypress Swamp

Highlands Hammock State Park near Sebring is a natural park. Trained naturalists are available for guidance through the drives and footpaths. Unlimited tour time. A typical native cypress swamp is penetrated by a catwalk. Open daily from 8 A.M. to sunset. Nominal facility fee.

Killearn Gardens State Park, five miles north of Tallahassee on U. S. 319, is an outstanding beauty spot. The two hour tour time allows visitors views of massed plantings of azaleas and camellias. Picnic area is also available. Open daily from 8 A.M. to sunset, closes June 15. Small facility fee.

McKee Jungle Gardens is three miles south of Vero Beach on U. S. Highway 1. Spectacular flowering and foliage plants from distant lands blend into a Florida showcase. Featured are Cathedral of Royal Palms, Jungle Hall of Giants, a continuous orchid show and wild animal exhibits. Picnic area available. Open daily from 8 A.M. to 5 P.M. Admission charged.

Monastery Garden is located north of Miami just off U. S. 1 at 167th Street. This formal mission garden offers hundreds of rare and striking tropical trees, palms and plants. This is also the setting for the ancient Spanish monastery of St. Bernard of Sacramenia, a 12th century building filled with art treasures. Guided tours are available. Tour time is about 30 minutes. Open daily from 10 A.M. to 5:30 P.M. Admission charged.

Mountain Lake Sanctuary, 3 miles north of Lake Wales, is the site of the world famous Singing Tower. This 80-acre retreat is located atop Iron Mountain, highest point on the Florida peninsula. Carillon recitals: December

through April each Tuesday, Thursday, Saturday and Sunday at 3 P.M., and picnic area is available. Tour time about one hour. Open daily from 8:30 A.M. to 5:30 P.M. Small facility fee.

Orchid Jungle, 25 miles south of Miami on U. S. 1, is the world's largest outdoor orchid garden. Plants from every tropical country grow on huge oaks in a natural jungle setting. Self-guided tour through the Fairyland of Flowers. Tour time is one hour or more. Open daily from 8:30 A.M. to 5:30 P.M. Admission charged.

Plant Introductory Garden at Coral Gables is one of three operated by the United States Department of Agriculture. The garden specializes in tropical and subtropical importations. It also serves as a disease free world bank for coffee and rubber plants sent here from production areas. Open daily. No admission charged.

Ravine Gardens at Palatka features azaleas set rustically along a natural ravine. Tour time is approximately 30 minutes by car or visitors may stroll through the 85-acre garden. Open daily from 8 A.M. to 5 P.M. through May. No admission.

Jungle Gardens

Sanlando Springs, between Orlando and Sanford on State Road 434, is beauty and color spot for camellias and azaleas. Swimming in Sanlando Springs' swimming pool, plant nursery, cottages and picnic area also featured. Tour time is an hour or more. Open daily. Admission charged.

Sarasota Jungle Gardens is just north of Sarasota on U. S. 41. Carved from a Florida banana swamp about 20 years ago it has grown into a magnificent botanical exhibit with both jungle and garden settings. Flamingoes and uncaged wildfowl from every continent roam freely through the gardens. Tour time is about two hours. Open from 7:30 A.M. to 6 P.M. weekdays, and 9 A.M. to 6 P.M. Sundays. Admission charged.

Sugar Mill Gardens, five miles south of Daytona Beach at Port Orange, offers the ruins of an old English sugar mill, beautiful garden settings and life-size replicas of prehistoric dino-

allergy-free
for
months



with a one week course of daily injections

Anergex—1 ml. daily for 6-8 days—usually provides prompt relief that persists for months.

Anergex—a specially prepared botanical extract—is nonspecific in action; it suppresses allergic manifestations *regardless* of the offending allergens. It is not a histamine antagonist, nor does it merely minimize the effects of a single allergen.

Anergex eliminates skin testing, long drawn-out desensitization procedures, and special diets. It has been effective even in patients who failed to respond to other therapeutic measures.

Reports on over 3,000 patients have shown that over 70% derived marked benefit or complete relief following a single short course of Anergex injections. Effective in seasonal and nonseasonal rhinitis (pollens, dust, dander, molds, foods); allergic asthma; asthmatic bronchitis and eczema in children; food sensitivities.

Available: Vials containing 8 ml.—one average treatment course.

WRITE FOR REPRINTS AND LITERATURE

ANERGEX[®]

the new concept for the treatment of allergic diseases

MULFORD COLLOID LABORATORIES  PHILADELPHIA 4, PENNSYLVANIA

Patent applied for

TRAVEL

saurs. Tour time is one hour. No admission charged.

Sunken Gardens at St. Petersburg offers camellias and azaleas and exotic semi-tropical plants in a setting of tall stately palms. Tour time is about one hour. Open daily from 8 A.M. to sunset. Admission charged.

Agricultural Research

University of Florida Agricultural Experiment Station at Gainesville is responsible for research leading to the improvement of all phases of Florida's varied agricultural production, processing and marketing. Experimental plots and greenhouses for citrus, flowering shrubs, perennials and annuals. Open daily. No admission.

Vizcaya is situated in Miami and is the estate of the late James Deering, now the Dade County Art Museum. It consists of ten acres of formal gardens, with fountains, pools, statues and sculptured vases, sunny terraces and shady vistas, a secret garden and a miniature theater. The 20-room home contains rare antiques from Europe. Tour time is two hours or more. Open

daily from 10 A.M. to 5 P.M. except Christmas Day. Admission charged.

For those of you planning a trip to Florida this winter and interested in certain varieties of flowers, here is a schedule of the blooming seasons for popular plant species.

Azalea: Central Florida, December through February — North Florida, January through March

Bougainvillea: south and central, winter and at intervals during the year

Camellia: central and north, November through February

Flame Vine: south, January through March

Gardenia: all sections, April through June

Hibiscus: south and central, all year

Jacaranda: south and central, spring and summer

Magnolia: all sections, spring

Mimosa: all sections, spring

Night Blooming Cereus: south, summer

Oleander: south and central, all year

Orchids: south, all year

Orange: central, in bloom, February, March; harvested, October, February

Poinsettia: all sections, Christmas season

Royal Poinciana: south, early summer

Spanish Bayonet: all sections, spring and summer



MEDICAL TIMES TRAVEL NOTES

A roundup of travel and vacation news of current interest

● Far East: Tours to Japan, with departures every Sunday from San Francisco, are now being offered by British Overseas Airways Corporation. Planes used are the turbo-prop Britannias. The basic 15-day tour, costing \$1214 each for a party of two, includes stops at Tokyo, Nikko, Kegon waterfall, Kyoto and Lake Hakone. An extension, which begins on the twelfth day of the trip in Japan, proceeds to Hong Kong, Macao, Manila and a day's stop at Honolulu on the return journey. This trip plus the basic tour totals 22 days and is priced at \$1721.50 per person in a party of two.

● A revised edition of the Public Health Service booklet, "Immunization Information for International Travel," is now available. Copies may be obtained from the Superintendent of Documents, Government Printing Office, Washington 25, D. C. Price: 30 cents.

● Florida notes: A short stay package trip to Miami will be offered by Eastern Air Lines beginning December 15 and continuing through April 15. The plan offers four days and three nights at any of four Miami hotels. Price of

Continued on page 146a

XYLOCAINE
LOCAL &
TOPICAL
ANESTHETIC
NERVE BLOCK
INFILTRATION
SWAB SPRAY

suturing: Xylocaine® HCl Solution applied topically will permit cleaning and suturing of wounds with patient comfort in an emergency or in the office. Fast acting — Safe — Dependable.

bursitis: Xylocaine HCl Solution injected into the painful area will diffuse around the bursae relieving pain promptly — often restoring normal freedom of motion. Prolonged anesthesia often prevents recurring pain.

therapeutic block: Xylocaine HCl Solution interrupts the underlying mechanism of pain, with relief often persisting even after the block has disappeared. It is of value in assisting motion or manipulation; for severe, intractable pain conditions; and in allowing patient comfort for other procedures.

minor surgery: Xylocaine HCl Solution will diffuse over a wide operative field, permitting pain-free removal of warts, cysts, moles, etc., and giving safe, effective, and predictable anesthesia for patient comfort.

Supplied: Multiple dose vials, 20 cc. and 50 cc.; 0.5%, 1% and 2% without and with epinephrine 1:100,000. Ampules, 2 cc.; 2% without and with epinephrine 1:100,000.



ASTRA

U.S. PAT. NO. 2,441,499 MADE IN U.S.A.



WHENEVER COUGH THERAPY IS INDICATED

Hycomine

SYRUP

THE *complete* Rx FOR COUGH CONTROL

cough sedative / antihistamine / expectorant

- relieves cough and associated symptoms
- in 15-20 minutes • effective for 6 hours or longer
- promotes expectoration • rarely constipates
- agreeably cherry-flavored

Each teaspoonful (5 cc.) of Hycomine® contains:

Hycomine®	
Dihydrocodeinone Bitartrate	5 mg.
Warning: May be habit-forming	
Homatropine Methylbromide	1.5 mg.
Pyritamine Maleate	12.5 mg.
Phenylephrine Hydrochloride	10 mg.
Acetaminophen	60 mg.
Sodium Citrate	85 mg.

Supplied: As a pleasant-to-take syrup. May be habit-forming. Federal law permits oral prescription.

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THAN EVER WITH THE
NASAL DECONGESTANT
PHENYLEPHRINE

Endo®

Literature
on request

ENDO LABORATORIES Richmond Hill 18, New York

over a cup of coffee...

INTERN: I've been wondering why you prescribed AZOTREX for the cystitis case. Are all three agents — tetracycline, sulfa and azo dye — really necessary?



ATTENDING MAN: Well, whenever I treat a urinary infection, I have three things in mind. First, I want to relieve pain, frequency and urgency as soon as I possibly can. Next, I want to eliminate the bacteria in the urine and easily accessible pathogens in the mucosa. Finally, I'd like to clear up the deeper foci of infection and thus help prevent recurrence. With AZOTREX, I have a good chance of accomplishing all three.

INTERN: I can go along with AZOTREX as far as relief of symptoms is concerned. The azo dye is a good urinary analgesic, so I agree with you on the relief of pain. Also I know that some patients get reassurance from the change in color of the urine.

But, why treat the infection with both tetracycline and sulfamethizole? Combination antibacterial therapy has come under some editorial fire recently. You know—no synergistic or additive effect in most cases. Generally, we're supposed to use the single antibiotic or sulfa which the "bugs" are most sensitive to.



ATTENDING MAN: I agree wholeheartedly. That's why I sent a specimen to the lab for culture and sensitivity. But right now we don't know the organisms involved, and it's going to be 2 or 3 days before we get the lab report.

When I have to work in the dark, I want as broad antibacterial coverage as possible. Moreover, if this is a mixed infection — and these are fairly common — our chances are likely to be better with a combination like AZOTREX. Tetracycline and sulfamethizole are effective against many strains of staph, strep, proteus and pneumococci. Rhoads recommends this type of combination therapy for *Pseudomonas*, *A. aerogenes*, *B. faecalis* and *E. coli*.

So I figure AZOTREX is a good way to start. Should the sensitivity tests indicate that another antibacterial agent is preferable, we'll switch to that.

INTERN: You also said something about deeper foci of infection in the kidney . . . ?



INTERN: O. K., I'll look it up. In the meantime I'll try to keep an open mind.



ATTENDING MAN: We are both aware that a foreign body or obstruction will cause persistence of the infection and should be attacked directly. However, infection may persist or recur even in their absence.

Kass has suggested that this may be due to inadequate drug levels in tissues with a poor blood supply. Such circumstances may account for the reappearance, even after apparent sterilization of the urine, of the original organism with the same antibiotic sensitivity. Also, inadequate local tissue concentrations might fail to kill all bacteria and encourage the emergence of resistant strains. In Kass' view, high blood levels of drug are necessary to permit penetration of sufficient amounts to be of therapeutic value.

Tetracycline—especially in its phosphate form—is rapidly absorbed from the G. I. tract and produces high blood and tissue levels. According to Mason, sulfamethizole is one of the most soluble sulfonamides; this means high urinary antibacterial concentrations without crystalluria. I'd suggest you look this up in the U. S. Dispensatory and in N. N. D.

ATTENDING MAN: So far, we've talked only about "bugs and drugs". Let's not forget we're dealing with a sick person who will have to take medicine for a long time. It's a lot easier and more convenient to take one capsule instead of three. Now, how about another cup of coffee?

Azotrex[®]

TETRACYCLINE — SULFONAMIDE — ANALGESIC

AZOTREX CAPSULES

Each capsule contains:

TETREX[®] (tetracycline phosphate complex equivalent to tetracycline HCl activity) 125 mg.

Sulfamethizole 250 mg.

Phenylazo — diamino — pyridine HCl 50 mg.

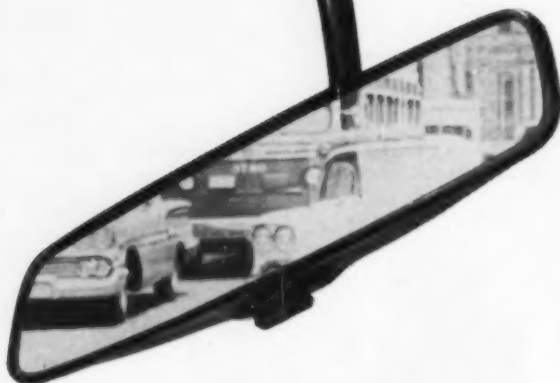
Minimum Adult Dose: One capsule q.i.d.

Supplied: Bottles of 24 and 100 capsules.

U. S. PAT. NO. 2,701,509

References: Rhoads, P. S.: Postgrad. Med. 21:563 (June) 1957; Kass, E. H.: Am. J. Med. 18:764 (May) 1955; Mason, J. T. in Conn, H. F.: Current Therapy—1959, W. B. Saunders, Philadelphia, p. 342; Osol, A. and Farrar, G. E., Jr., Eds.: The Dispensatory of the United States of America 25th edition, Philadelphia, J. B. Lippincott Co., 1955, p. 1881; New and Nonofficial Drugs 1959, Philadelphia, J. B. Lippincott Co., p. 60.





Traffic : jammed

Car : stalled

Temper : mild

Ulcer : quiet

Here's a man whose ulcer once would have protested strongly—not just at traffic problems—but at the entire gamut of stress to which modern man is subjected.

His physician, aware that *the patient as well as the ulcer* must be treated, has prescribed ALUDROX SA.

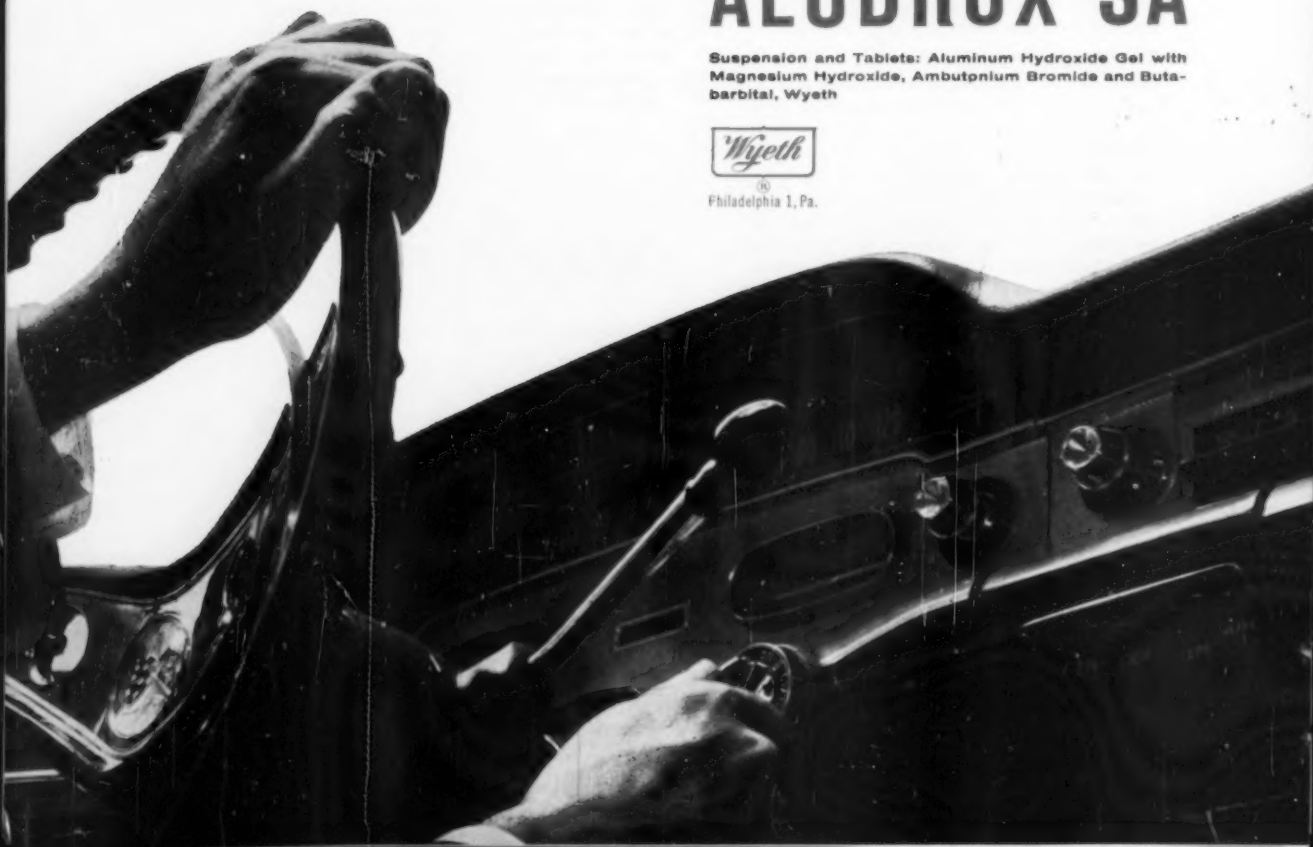
eases tension • promotes healing
relieves pain • reduces acid secretion
inhibits gastric motility

ALUDROX[®] SA

Suspension and Tablets: Aluminum Hydroxide Gel with Magnesium Hydroxide, Ambutonium Bromide and Butabarbital, Wyeth



Philadelphia 1, Pa.

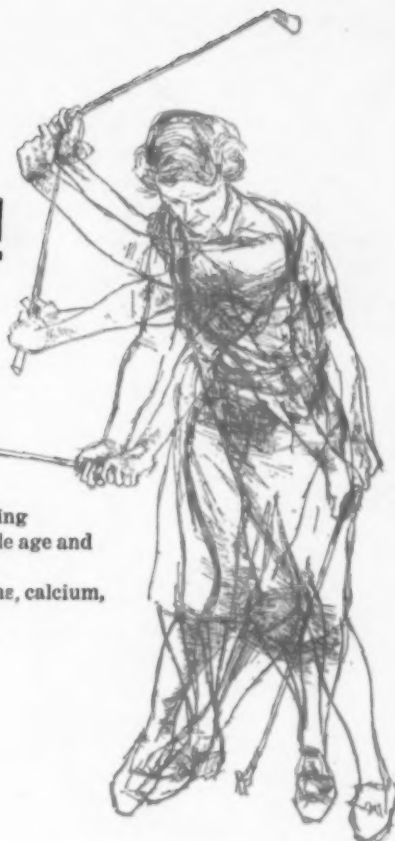


New revitalizing tonic
brightens
the second half of life!

RitonicTM

A sense of frustration and inadequacy, faulty nutrition, waning gonadal function—RITONIC meets all these problems of middle age and senile let-down. The unique combination of RITALIN, the safe central stimulant, with a balanced complement of vitamins, calcium, and hormones acts to renew vitality, re-establish hormonal and anabolic benefits, and improve nutritional status.

"We found Ritonic to be a safe, effective geriatric supplement..."¹ "Patients reported an increase in alertness, vitality and sense of well being."²



PRESCRIBE RITONIC

for your geriatric patients, your middle-aged patients and your postmenopausal patients.

Each Ritonic Capsule contains:

<i>Ritalin</i> ® hydrochloride	5 mg.
methyltestosterone	1.25 mg.
ethinyl estradiol	5 micrograms
thiamin (vitamin B ₁)	5 mg.
riboflavin (vitamin B ₂)	1 mg.
pyridoxin (vitamin B ₆)	2 mg.
vitamin B ₁₂ activity	2 micrograms
nicotinamide	25 mg.
dicalcium phosphate	250 mg.



Dosage: One Ritonic Capsule in mid-morning and one in mid-afternoon.

Supplied: Ritonic CAPSULES; bottles of 100.

References: 1. Natenshon, A. L.: J. Am. Geriatrics Soc. 6: 534 (July) 1958.
2. Bachrach, S.: To be published.

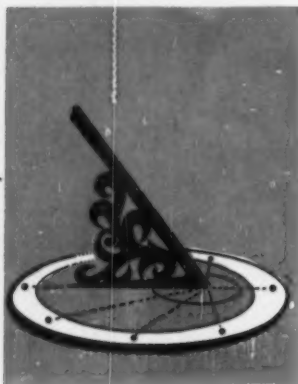
RITALIN® hydrochloride (methylphenidate hydrochloride CIBA)

C I B A Summit, N. J.

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TRAVEL

trip ranges from \$122.96 to \$266.76. The higher price is for first-class air travel and the best hotel room. Accommodations are on the European plan, with either pool or beach privileges and access to nearby public golf courses. The package trips are designed for sports fans and convention members who plan to stay in the area for a short time only.



Calendar of Meetings

A listing of important national and international medical conferences

DECEMBER

Nassau, Bahamas. Bahamas Surgical Conference, Dec. 28-Jan. 16. *Contact:* Dr. B. L. Frank, P. O. Box 4037, Fort Lauderdale, Fla.

New York, N. Y. New York Heart Association, Symposium on Salt and Water Metabolism, Dec. 11-12. *Contact:* Dr. Alfred P. Fishman, N. Y. Heart Association, 10 Columbus Circle, New York, N. Y.

JANUARY, 1960

Hollywood-by-the-Sea, Fla. American Academy of Allergy, Jan. 11-13. *Contact:* Mr. James O. Kelley, 756 N. Milwaukee St., Milwaukee 2, Wis.

Nassau, Bahamas. Bahamas Medical Serendipity Conference, Jan. 17-30. *Contact:* Dr. B. Frank, P. O. Box 4037, Fort Lauderdale, Fla.

FEBRUARY

Miami Beach, Fla. American College of Allergists, Feb. 28-Mar. 4. *Contact:* Dr. John D. Gillaspie, 2049 Broadway, Boulder, Col.

APRIL

New York, N. Y. International Anatomical Congress, April 11-16. *Contact:* Dr. D. W. Fawcett, Dept. of Anatomy, Cornell University Medical College, 1300 York Ave., New York 21, N. Y.

MAY

Geneva, Switzerland. World Health Assembly, May 3. *Contact:* World Health Organization, Palais des Nations, Geneva.

Rome, Italy. Congress of the International College of Surgeons, May 15-18. *Contact:* Dr. Max Thorek, 850 W. Irving Park Rd., Chicago, Ill.

"'Just a little
case of cystitis'
may actually
have already
involved the
kidney parenchyma
before the
bladder
became infected.'"

"The first evidence of inflammatory
disease of kidney or prostate
often is vesical irritability."



WHEN THE SYMPTOM IS CYSTITIS

FURADANTIN

brand of nitrofurantoin

for rapid control of infection throughout the G. U. system

Rapid bactericidal action against a wide range of gram-positive and gram-negative bacteria including organisms such as staphylococci, Proteus and certain strains of Pseudomonas, resistant to other agents

- actively excreted by the tubule cells in addition to glomerular filtration
- negligible development of bacterial resistance after 7 years of extensive clinical use
- excellent tolerance—nontoxic to kidneys, liver and blood-forming organs
- safe for long term administration

AVERAGE FURADANTIN ADULT DOSAGE: 100 mg. q.i.d. with meals and with food or milk on retiring. Supplied: Tablets, 50 and 100 mg.; Oral Suspension, 25 mg. per 5 cc. tsp.

REFERENCES: 1. Editorial, J.M.A. Georgia 46:433, 1952. 2. Colby, F. H., Essential Urology, Baltimore, The Williams & Wilkins Co., 1953, p. 330.

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Easy to swallow and attractively colored, ABDEC Kapseals encourage maintenance of dosage schedules by all your patients—especially finicky preadolescents and teenagers. They feel truly "grown-up" taking ABDEC Kapseals with Mom and Dad.

ABDEC Kapseals comprehensively supplement the diet by supplying balanced proportions of 10 important vitamins. You help furnish sound, year-round multivitamin protection for the entire family when you specify ABDEC Kapseals.

Each ABDEC Kapseal contains:

Vitamin A	10,000 units (3 mg.)
Vitamin D	1,000 units (25 mcg.)
Vitamin C (ascorbic acid)	75 mg.
Vitamin B ₁ (thiamine) mononitrate	5 mg.
Vitamin B ₂ (G) (riboflavin)	3 mg.
Vitamin B ₆ (pyridoxine hydrochloride)	1.5 mg.
Vitamin B ₁₂ (crystalline)	2 mcg.
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DOSAGE:

For the average patient, 1 ABDEC Kapseal daily. Two or more may be prescribed in treatment for specific vitamin deficiencies.

PACKAGE INFORMATION:

ABDEC Kapseals are supplied in bottles of 50, 100, 250, and 1,000. Also available: ABDEC Drops in 15-cc. and 50-cc. bottles with calibrated droppers.

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control
more
than
high
blood pressure
with

Serpasil-Esidrix

Combination Tablets

POTENTIATED ANTIHYPERTENSIVE

Serpasil-Esidrix not only lowers blood pressure, it controls complications of hypertension, too. For example, it rapidly eliminates excess fluid in decompensated patients with edema. And, through its heart-slowing and calming actions, Serpasil-Esidrix also relieves the tachycardia and anxiety that so often accompany hypertension. Equally important: Esidrix combined with Serpasil frequently reduces pressure to lower levels than single-drug therapy. Potentiated antihypertensive effect—single-tablet convenience. SUPPLIED: *Tablets* (light orange, scored), each containing 0.1 mg. Serpasil and 25 mg. Esidrix. SERPASIL®-ESIDRIX® (reserpine and hydrochlorothiazide CIBA)



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*White's
Vitamin A and D
Ointment
clinically
well established
for its
emollient-protective
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healing actions is
**now also available
with 0.5 per cent
Prednisolone**
for its
potent
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actions
and patient
comfort.*

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MODERN THERAPEUTICS

New therapies and significant clinical investigations
abstracted from other journals.

Newborn Infants Treated with Methylphenidate Hydrochloride

Methylphenidate (Ritalin) hydrochloride is recognized as a mild central nervous system stimulant, and has been used in connection with central nervous system depression, especially when this condition was drug-induced. It has been shown to shorten effectively recovery time after light thiopental sodium-nitrous oxide anesthesia. The optimum dose was found to be 0.1-0.2 mg. per pound of body weight; very high doses were found less effective. In a study of 14 patients, respiratory minute volume was increased an average of 65 percent. Side-effects were limited to transient mild raising of the blood pressure and momentary nausea or retching in the clinical dose range. Very high doses were followed by marked tachycardia in one patient, but no tremors or convulsions were noted. In order to reduce the depression of infants whose mothers had received heavy medication, the women received 15-30-mg. doses of Ritalin intramuscularly. There was clinical improvement in the infants, but certain difficulties made it seem advisable to administer the drug to the newborn infant directly if it seemed depressed. Methylphenidate, 1 mg. per five pounds of body weight, was administered intramuscularly to apparently depressed newborn infants after adequate oxygenation. Although improvement could not be definitely attributed to the drug, there seemed to be every reason

to believe that results were due to its influence. Within one or two minutes there was a marked increase in respiratory activity, and within five to ten minutes there was increased crying and bodily activity, which reached a maximum in 15 to 20 minutes. The use of methylphenidate hydrochloride for depressed newborn infants has become routine at Mt. Sinai Hospital in Cleveland. It must be recognized at all times that a drug is not a substitute for adequate oxygenation, which should always be accomplished first.

ARNOLD S. GALE, M.D.
J.A.M.A. (1959) Vol. 170, No. 12, P. 1408

Mentally Retarded Children Treated with Chlorpromazine

A series of 54 children whose personality disturbances included hyperactivity, destructive tendencies, undue aggressiveness, and difficulty in sleeping were given chlorpromazine (Thorazine) and the results of treatment assessed. The children were considered in four categories according to the severity of disturbance. All of the children had received prior therapy which had failed to be effective. Dosages of chlorpromazine had to be individualized: they ranged from 30 to 800 mg. per day, with the determined suitable dose, for the most part, varying between 30 and 75 mg. daily. When the results of therapy were

Continued on page 158a

first in preference for relief from cough

quiets the cough and calms the patient

Expectorant
Antihistaminic

Sedative
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Promethazine Expectorant, Wyeth
with Codeine

Plain (without Codeine)



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Pediatric **PHENERGAN** EXPECTORANT
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QUIET



now! liquid
tetracycline in
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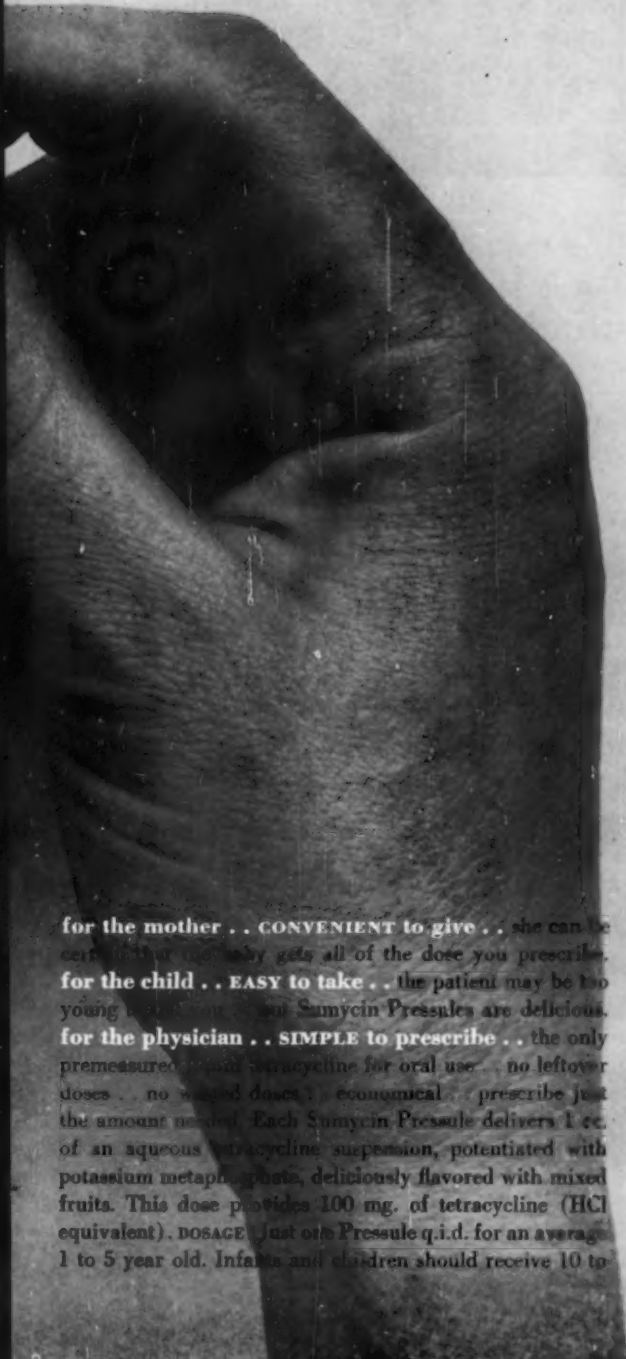
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a Squibb first in pediatrics

Sumycin
Phosphate Potentiated Tetracycline Aqueous Drops
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for the mother . . . **CONVENIENT** to give . . . she can be certain that the baby gets all of the dose you prescribe. for the child . . . **EASY** to take . . . the patient may be too young to swallow, but Sumycin Pressules are delicious. for the physician . . . **SIMPLE** to prescribe . . . the only premeasured tetracycline for oral use . . . no leftover doses . . . no wasted doses . . . economical . . . prescribe just the amount needed. Each Sumycin Pressule delivers 1 cc. of an aqueous tetracycline suspension, potentiated with potassium metaphosphate, deliciously flavored with mixed fruits. This dose provides 100 mg. of tetracycline (HCl equivalent). **DOSAGE:** just one Pressule q.i.d. for an average 1 to 5 year old. Infants and children should receive 10 to

20 mg. of tetracycline/lb. of body weight. Thus for a child weighing from 20 to 40 pounds, one Pressule q.i.d. will be sufficient for the vast majority of infections. For children weighing more than 40 pounds, give 2 or more Sumycin Pressules q.i.d., according to body weight, or Sumycin Syrup. For infants under 20 pounds, administer Sumycin Aqueous Drops. **SUPPLIED:** Sumycin Syrup, a fruit flavored aqueous suspension, buffered with potassium metaphosphate, containing tetracycline equivalent to 125 mg. tetracycline HCl per 5 cc., and Sumycin Aqueous Drops, a fruit flavored aqueous suspension, buffered with potassium metaphosphate, containing tetracycline equivalent to 100 mg. tetracycline HCl per cc. **SQUIBB**



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- 'Deaner' may be prescribed with little or no concern over side effects even in the presence of liver disease, diabetes, cardiovascular disease, and a long list of other chronic conditions, except grand mal epilepsy (only contraindication).
- 'Deaner' *is not a monoamine oxidase inhibitor*; hence it is not necessary to monitor its administration with repeated, expensive laboratory tests.
- This notable freedom from side effects endows Deaner's long-term administration with easier patient supervision, better patient cooperation, and greater safety.
- Dosage is simple—initially, 50 mg. (2 tablets) daily in the morning. *Gradually, apathy and defeat are transformed into affability and renewed interest and vigor.*

Write for details and the applicability of
'Deaner' in behavior problems of children

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women of
childbearing
age...
and growing
children...
may be

OVERDRAWN AT THE BLOOD BANK

Women of menstrual age and growing children have higher iron requirements than other individuals. Hence iron-deficiency anemias occur most often in these groups. Many clinicians recognize that most women need a hematinic for six weeks each year during reproductive years.

Livitamin, with peptonized iron and B complex, offers an excellent formula to restore depleted iron reserves in both adults and children. Peptonized iron is well absorbed and stored, and better tolerated than ferrous sulfate. B complex and other factors provide nutritional support.



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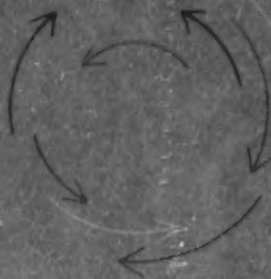
FORMULA: Each fluidounce contains:

Iron peptonized	420 mg.
(Equiv. in elemental iron to 71 mg.)	
Manganese citrate, soluble	158 mg.
Thiamine hydrochloride	10 mg.
Riboflavin	10 mg.
Vitamin B ₁₂ Activity	20 mcg.
(Derived from Cobalamin conc.)	
Nicotinamide	50 mg.
Pyridoxine hydrochloride	1 mg.
Pantothenic acid	5 mg.
Liver fraction 1	2 Gm.
Rice bran extract	1 Gm.
Inositol	30 mg.
Choline	60 mg.

SUPPLIED IN LIQUID OR CAPSULE.

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Livitamin assures patient acceptance because it is highly palatable. Peptonized iron provides a virtually predigested form of iron. Recent studies* show peptonized iron has these advantages:

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- Non-astringent
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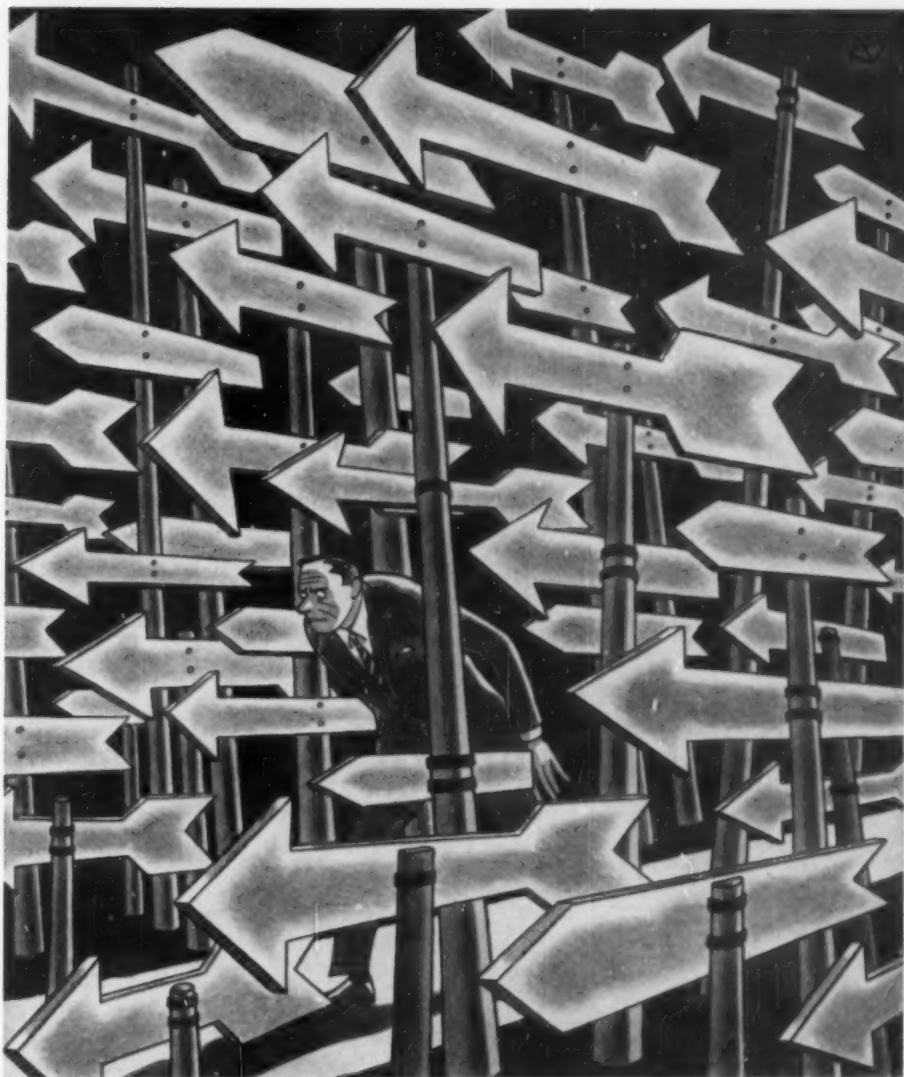
with Peptonized Iron

...the preferred hematinic

*Keith, J.H.: Utilization and Toxicity of Peptonized Iron and Ferrous Sulfate, Am. J. Clin. Nutrition 1:35 (Jan.-Feb., 1957).

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The constraint of rigid management

Many diabetics on insulin live highly restricted lives. They may not miss or delay a meal; they must neither over-work nor under-exercise for fear of complications.

For 3 out of 4 of these patients, Orinase* offers better control and an easier, more normal life. Because Orinase controls diabetes effectively and *smoothly* in responsive patients, they can enjoy a new freedom. And some diabetics, who cannot be managed on Orinase alone, do best on *combined* Orinase-insulin therapy.

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ORINASE

evaluated, the degree of severity of symptoms appeared to have no appreciable influence. Of the group, 16 showed moderate improvement, and 15 were markedly benefited. From the limited material in this study, children with a frank brain injury appeared to respond more favorably to medication than those whose mental retardation seemed to be due to a lack of brain development. It was discovered, also, that the patient's reaction to chlorpromazine could not be predicted. The most serious side-effect was a first occurrence of convulsions in two patients, and an increased incidence in two others. As a speculative observation, it is possible that chlorpromazine causes convulsions in an occasional patient due to its anti-serotonin action.

J. D. ROWLEY, M.D. et al.
Ill. Med. J. (1959), Vol. 116, P. 81

Voluntary Control of Micturition in Man

"Man's ability to void at will is a unique phenomenon in the animal world. The shape of his pelvis and the arrangement of the levator ani and its pubococcygeus are peculiar to man. Our studies have shown that it is this particular arrangement of the pelvic floor muscles which have enabled him to void at will.

Since no animal can void at will like man can, it has not been possible to ascertain the physiology of this mechanism in man by animal experimentation.

Cystometry also has not been able to reveal how voluntary micturition is initiated. It can only record that the bladder has contracted.

Cystometry has clearly shown that the detrusor must contract for micturition to proceed. This second step in the physiology of

Continued on page 162a

PROTECT Little Braves' Bottoms



"DIAPARENE PERI-ANAL is an efficient and safe agent in the prevention and treatment of perianal dermatitis"* . . . newborn "sore-bottom" due to loose, transitional stools and irritations caused by diarrhea or loose stools following oral antibiotic therapy.

*Grossman, Leo, "A New Specific Treatment for Perianal Dermatitis", *Arch. Ped.*, 71:173-79, June, 1955

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 SPECIALTY BY BREON



U. S. PAT. NO. 2,843,522

Samples and Literature on Request

RESULTS IN 366 PATIENTS WITH STOMACH ULCERS

DIAGNOSIS	TOTAL	MARKED IMPROVEMENT WITH X-RAY GAINS	MARKED IMPROVEMENT	SLIGHT IMPROVEMENT	NO IMPROVEMENT
PEPTIC	50	10	29	9	2
GASTRIC	56	11	33	10	2
DUODENAL	256	39	175	33	9
PYLORIC	4	—	1	2	1
TOTAL	366	60	238	54	14
Summary of investigators' reports.		16%	65%	15%	4%

81% MARKED IMPROVEMENT REPORTED

*proven relief of pain, spasm and nervous
tension without the side effects of
bromides or barbiturates*

INDICATIONS—

duodenal and gastric ulcer
gastritis
colitis
spastic and irritable colon
gastric hypermotility
esophageal spasm
intestinal colic
functional diarrhea
G. I. symptoms of anxiety states

NOW—2 FORMS

for adjustability of dosage

Milpath - 400—Yellow, scored tablets of 400 mg. meprobamate and 25 mg. tridihexethyl chloride (formerly supplied as the iodide). Bottle of 50.

Dosage: 1 tablet t.i.d. at mealtime and 2 at bedtime.

Milpath - 200—Yellow, coated tablets of 200 mg. meprobamate and 25 mg. tridihexethyl chloride. Bottle of 50.

Dosage: 1 or 2 tablets t.i.d. at mealtime and 2 at bedtime.

Milpath®

®Miltown + anticholinergic



WALLACE LABORATORIES New Brunswick, N. J.

after the coronary

Peritrate improves blood flow
...with no significant
drop in blood pressure

Peritrate aids in the establishment of vital collateral circulation in the postcoronary patient.



Unlike nitroglycerin, Peritrate is a **selective** vasodilator that works almost exclusively on coronary vessels with only minimal peripheral effects. It increases coronary blood supply without significant fall in blood pressure or increase in pulse rate. Prescribe Peritrate 20 mg. q.i.d. for your post-coronary patients.

Peritrate® 20 mg.

brand of pentaerythritol tetranitrate

With the aid of
Peritrate, compensatory
collateral circulation
develops
around damaged
myocardium.



Fostex®

treats their
acne
while they
wash



degreases the skin helps remove blackheads dries and peels the skin

...and this is how it works

Fostex provides essential actions necessary in treating acne. It washes off excess oil. It unblocks pores by penetrating and softening blackheads. It dries and peels the skin, removing papule coverings, thus permitting drainage of sebaceous glands.

Fostex contains Sebulytic®,* a combination of surface-active wetting agents with remarkable antiseborrheic, keratolytic and antibacterial actions... enhanced by sulfur 2%, salicylic acid 2%, hexachlorophene 1%.

*sodium lauryl sulfoacetate, sodium alkyl aryl polyether sulfonate and sodium dioctyl sulfosuccinate.

Your patients will like Fostex because it is so simple to use. They simply wash acne skin 2 to 4 times a day with Fostex, instead of using soap.



FOSTEX CREAM

... in 4.5 oz. jars. For therapeutic washing in the initial phase of oily acne treatment.

Write for samples.



FOSTEX CAKE

... in bar form. For therapeutic washing to keep the skin dry and free of blackheads during maintenance therapy. Also used in relatively less oily acne.

WESTWOOD PHARMACEUTICALS

• **Buffalo 13, New York**

micturition is well established. The first step in this process, however, *i.e.* how the detrusor is induced to contract in the first place, could not be clarified by animal experimentation nor by cystometry. This has led to the hypothesis that the detrusor can either be voluntarily contracted or that the removal of inhibitory reflexes from the detrusor will permit it to contract.

Fluoroscopic observations of the bladder in man have shown that the first step in the physiology of micturition is not brought about by the mere dispatch of impulses to the bladder, be they direct or indirect, but that man utilizes a 'voluntary mechanism' which is mediated through the use of intra-abdominal pressure and his pelvic floor muscles. The levator ani and its pubococcygeus is also the primary muscle used to stop the urinary stream voluntarily. Recent experimental evidence

which tended to cast doubt on the function of the voluntary mechanism in the physiology of micturition has been critically reviewed."

S. RICHARD MUELLINER
The Journal of Urology (1958), Vol. 80.
No. 6, P. 478

Hypophysectomy in the Treatment of Metastatic Mammary Carcinoma

"Two hundred eighteen patients with metastatic mammary cancer had hypophysectomies between March 1954, and March 1958. The results for 109 patients who had a minimum follow-up period of 17 months are reported. Approximately 50% of these patients obtained objective remissions, and 35% had remissions that have lasted 6 months or longer. In the latter group, the average period of remission

Continued on page 166a



162a

they deserve

GEVRAL[®]


Vitamin-Mineral Supplement Lederle

CAPSULES—14 VITAMINS—11 MINERALS

LEDERLE LABORATORIES, a Division of
AMERICAN CYANAMID COMPANY, Pearl River, New York



MEDICAL TIMES



Your difficult rheumatic patient...

on the job again

through effective relief and rehabilitation

For the patient who does not require steroids

PABALATE®

Reciprocally acting nonsteroid antirheumatics . . . more effective than salicylate alone.

In each enteric-coated tablet:

Sodium salicylate U.S.P. 0.3 Gm. (5 gr.)
Sodium
para-aminobenzoate 0.3 Gm. (5 gr.)
Ascorbic acid 50.0 mg.

or for the patient
who should avoid sodium

PABALATE® - Sodium Free

Pabalate, with sodium salts replaced by potassium salts.

In each enteric-coated tablet:

Potassium salicylate 0.3 Gm. (5 gr.)
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para-aminobenzoate 0.3 Gm. (5 gr.)
Ascorbic acid 50.0 mg.

For the patient
who requires steroids

PABALATE®-HC

(PABALATE WITH HYDROCORTISONE)

Comprehensive synergistic combination of steroid and nonsteroid antirheumatics... full hormone effects on low hormone dosage . . . satisfactory remission of rheumatic symptoms in 85% of patients tested.

In each enteric-coated tablet:

Hydrocortisone (alcohol) 2.5 mg.
Potassium salicylate 0.3 Gm.
Potassium para-aminobenzoate.. 0.3 Gm.
Ascorbic acid 50.0 mg.

PABALATE®  **PABALATE®-HC**

For steroid or non-steroid therapy: **SAFE DEPENDABLE ECONOMICAL**

A. H. ROBINS CO., INC., RICHMOND 20, VIRGINIA • Ethical Pharmaceuticals of Merit since 1878

treat the "common cold plus"
new **MADRICIDIN**

prompt palliative effect plus defense against secondary invaders

each capsule provides:

MADRIBON

125 mg

a low-dosage sulfonamide... to help prevent the secondary bacterial infections which may complicate the common cold

N-ACETYL-P-AMINOPHENOL

120 mg

an analgesic-antipyretic—considered the active metabolite of acetophenetidin... to reduce fever and to relieve headache, myalgia and other discomforts associated with acute respiratory disorders

Dosage: Adults—first day, 2 capsules q.i.d.; 1 capsule q.i.d. thereafter.

Continue therapy for 5 to 7 days or until patient is asymptomatic for at least 48 hours.

Caution: The usual precautions in sulfonamide therapy should be observed, including maintenance of adequate fluid intake. If toxic reactions or blood dyscrasias occur, use of the drug should be discontinued.

THEPHORIN TARTRATE

10 mg

an antihistamine with low incidence of side effects... to relieve the allergy-like congestion as well as the sneezing and lacrimation which often accompany respiratory infections

CAFFEINE

30 mg

a direct-acting physiological stimulant... to allay drowsiness and fatigue and to help combat the "dragged out" feeling of the patient with a common cold



ROCHE LABORATORIES

Division of Hoffmann-La Roche Inc.
Nutley 10, N. J.

MADRIBON®—2,4-dimethoxy-6-sulfamoylaniline-1,3,5-triazine
THEPHORIN® Tartrate—brand of pheniramine tartrate

MADRIBON
ROCHE®

was 15 plus months and the average survival time was 21 plus months.

A prior favorable response to oophorectomy was found to be of prognostic value in predicting a beneficial effect from hypophysectomy. In this setting, hypophysectomy yielded better results than did adrenalectomy.

Estrogen administration to 5 patients after hypophysectomy failed to induce exacerbation of tumor growth, suggesting that a factor from, or mediated by, the pituitary is necessary for estrogen stimulation of tumor growth.

Human growth hormone administered to 5 patients after hypophysectomy appeared to induce stimulation of the tumor growth in 2 patients. These preliminary observations suggest that growth hormone may be an important endocrine factor in mammary cancer.

Hypophysectomy is recommended as a practical, worthwhile procedure in the palliative

treatment of patients with metastatic breast cancer when adequate facilities are available to carry out this procedure."

OLOF H. PEARSON, M.D., and BRONSONS
S. RAY, M.D.

Cancer (1959), Vol. 12, No. 1, P. 91

Urinary Tract Infection in Children Treated with Nitrofurantoin

Nitrofurantoin was administered therapeutically or prophylactically for periods of up to 27 months to 100 children with urinary-tract infection. All patients received follow-up examinations for at least six months. These infections in children are both persistent and inherently resistant to treatment. According to the authors Nitrofurantoin seems to be effective, nontoxic, and suitable for both therapeutic

Continued on page 172a

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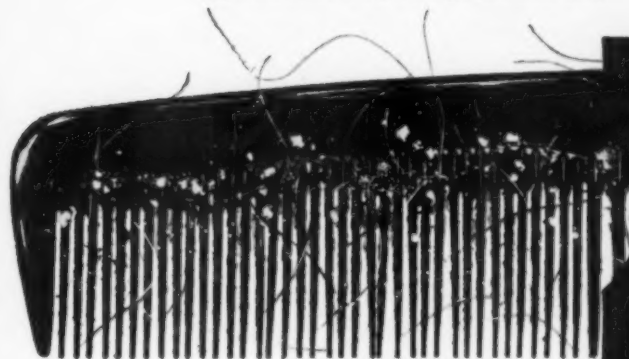
LEDERLE LABORATORIES, a Division of
AMERICAN CYANAMID COMPANY, Pearl River, New York



doctor,

you wouldn't have
such a comb—

(yet some of your patients do)



PHYSICIANS SAY:

- *safety*—"No toxic side effects were seen."¹ "... increased oiliness, loss of hair and staining ... were not noted."²
- *effectiveness*—"Of eighty-four patients ... seventy-nine [94%] obtained good to excellent results."³

THEIR PATIENTS SAY:

- *cosmetically acceptable and easy-to-use*—"This product is remarkably well accepted by the patients as an excellent, foamy shampoo, free from any objectionable odor ..."⁴

Capsebion is available on prescription only.
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... they'll appreciate
Capsebion
1% CADMIUM SULFIDE SUSPENSION

*a dandruff treatment that
isn't a "waste of time"*

References: 1. Harvey, J. H., and Ereaux, L. P.: Clinical study of cadmium sulfide shampoo, *Canad. M.A.J.* 79:917 (Dec. 1) 1958. 2. Stough, D. B.; Lewis, R. A.; Farmer, B. L.; Osmont, L. S., and Noojin, R. O.: New beneficial agents in the treatment of acne vulgaris and seborrheic dermatitis, *Postgrad. Med.* 24:439 (Oct.) 1958. 3. Kirby, W. L.: Preliminary and short report: Cadmium sulfide shampoo in seborrhea capitis, *J. Invest. Dermat.* 29:159 (Sept.) 1957. 4. Mullins, J. F., and Barnett, J. R.: Cadmium shampoo treatment of seborrheic dermatitis, *Texas J. Med.* 53:640 (Aug.) 1957.



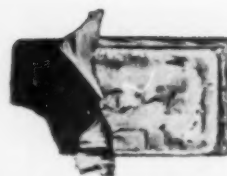
PITMAN-MOORE COMPANY
DIVISION OF ALLIED LABORATORIES, INC., INDIANAPOLIS 6, IND.



no more battles at vitamin time



Delectavites®



delectable, chewable, chocolate-like vitamin-mineral nuggets

No fights, no battles at vitamin time because children love to chew DELECTAVITES. These delectable, easily chewable chocolate nuggets supply all essential vitamins as well as minerals so necessary during the years of growth. As soon as children can chew, they can go directly from vitamin drops to DELECTAVITES. And, *now* you can be sure your little patients will follow your instructions about taking their daily vitamins.

Each nugget contains: Vitamin A—5000 Units* / Vitamin D—1000 Units* / Vitamin C—75 mg. / Vitamin E—2 Units†
 Vitamin B₁—2.5 mg. / Vitamin B₂—2.5 mg. / Vitamin B₆—1 mg. / Vitamin B₁₂ Activity—3 mcg. / Panthenol—5 mg.
 Nicotinamide—20 mg. / Folic Acid—0.1 mg. / Biotin—30 mcg. / Rutin—12 mg. / Calcium Carbonate—125 mg. / Boron—0.1 mg. / Cobalt—0.1 mg. / Fluorine—0.1 mg. / Iodine—0.2 mg. / Magnesium—3.0 mg. / Manganese—1.0 mg. / Molybdenum—1.0 mg. / Potassium—2.5 mg.

*U.S.P. UNITS †INT. UNITS

dosage: one Delectavite daily. **supply:** Box of 30 (one month's supply), Box of 90 (three months' supply).



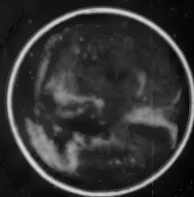
WHITE LABORATORIES, INC., KENILWORTH, NEW JERSEY

explodes trichomonads

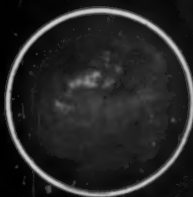
VAGISEC®

LIQUID AND JELLY

**93.1% "cure" rate using
strictest criterion—
negative cultures for
3 consecutive months**



before VagiseC



30 days "cure"

Repeated negative cultures, following treatment with VAGISEC liquid and jelly, confirmed "cures" in 93.1% of trichomoniasis patients (54 of 58) treated by Giorlando and Brandt.¹ These patients were followed up, using cultures, for a minimum of three months, many for as long as eight months. *All* remained negative. Using the same strict criterion of negative cultures, Weiner achieved comparable success²—46 of 51 patients freed of trichomonads.

VAGISEC therapy is consistently characterized by immediate relief of painful symptoms—few recurrences.

To help rule out conjugal re-infection—Husbands willingly cooperate as a part of the wife's treatment when RAMSES,[®] the pure gum rubber prophylactics with "built-in" sensitivity, are suggested for use routinely.

Active ingredients in VAGISEC liquid: Polyoxethylene nonyl phenol, Sodium ethylene diamine tetra acetate, Sodium diocetyl sulfosuccinate. In addition, VAGISEC jelly contains Alcohol 5% by weight.

1. Giorlando, S. W., and Brandt, M. L. *Am. J. Obst. & Gynec.* 76: 666 (Sept.) 1958. 2. Weiner, H. H. *Clin. Med.* 5: 25 (Jan.) 1956.

VAGISEC and RAMSES are registered trade-marks of Julius Schmid, Inc.

JULIUS SCHMID, INC.
423 West 55th Street, New York 19, N. Y.



Before Esidrix:
Weight 176 lbs.

27 pounds lost in 19 days; ascites and

RECORD OF TREATMENT (At a leading New York City hospital. Photos used with permission of the patient.)

Date	3/3	3/4	3/5	3/6	3/7	3/8	3/9	3/10	3/11	3/12	3/13	3/14	3/15	3/16	3/17	3/18	3/19	3/20	3/21	3/22	3/23
Weight (pounds)	178	176	170	169	167	159	158	158	157	153	155	155	156	154	153	154	153	—	—	151	149
Rx	M* Esidrix 50 mg. b.i.d.																				

*Mercurial diuretic



EsidrixTM

(hydrochlorothiazide CIBA)

pre-eminently effective whenever diuresis is desired

Indicated in: congestive heart failure . . . nephrosis and nephritis
. . . toxemia of pregnancy . . . premenstrual edema . . . edema of
pregnancy . . . steroid-induced edema . . . edema of obesity

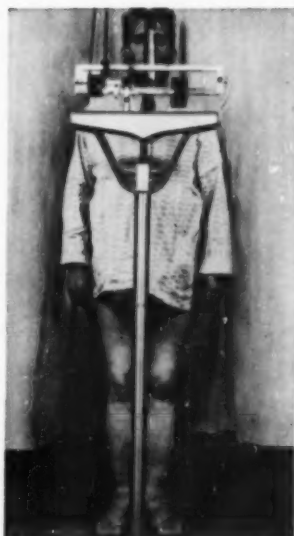
Supplied: Esidrix Tablets,
25 mg. (pink, scored)
and 50 mg. (yellow, scored);
bottles of 100 and 1000.





pedal edema reduced with Esidrix

H. K., 44 years old, was admitted to the hospital on 3/3/59 with complaints of swollen abdomen, swelling of both legs and exertional dyspnea. These symptoms had been intensifying over a three-week period. The patient's history included heavy drinking since the age of 18, and one prior admission to the hospital in 1954 with ascites and pedal edema. Diagnosis, at that time, was Laennec's cirrhosis, and the patient responded well to a regimen of diuretics, salt restriction and multivitamins. There was no recurrence up to that leading to his current admission.



Clinical findings worthy of note: Eyes — conjunctivae and sclerae slightly icteric. Chest — diaphragm elevated. Abdomen — girth enlarged, definite fluid wave. Liver palpated 4 fingerbreadths below the costal margin; no other palpable viscera. Extremities — pedal edema (4+).

The patient is well developed and not in acute distress. Blood pressure, 140/80 mm. Hg; pulse, 112/min.; respiration, 20/min. Impression: Laennec's cirrhosis — decompensated.

Treatment: Mercurial diuretic on 3/3 and 3/4, followed by Esidrix, 50 mg. b.i.d., from 3/5 to 3/23 when patient signed out of hospital. Esidrix induced copious diuresis resulting in almost complete disappearance of edema.

8/27/59

and prophylactic use. The development of drug-resistant bacterial mutants appears negligible. The daily therapeutic dosage employed was 7 to 10 mg. of the drug per kilogram of body weight given for at least two weeks after the urine had become sterile. A prophylactic dosage of 2 to 4 mg. per kilogram of body weight was given daily for at least three months. If there is a recurrence of infection, the same regimen should be repeated, but with an extended period of prophylactic treatment. Of the 100 children treated, the urinary tract infection was controlled in 82 percent. In the group without complications the figure was 92 percent. The broad antibacterial spectrum of Nitrofurantoin is important because of the variety of organisms encountered initially. In this group of patients, a total of 210 organisms was encountered either initially, during recurrence of infection, or when the organism

changed during treatment. No serious toxic effects were noted.

MATTHEW MARSHALL, JR., M.D. et al.
J.A.M.A. (1959), Vol. 169, No. 9, P. 919

A New Treatment for Sunburn

Persons who suffer severe sunburn reactions after too long exposure to the summer sun may be able to obtain fast relief from pain and discomfort with a new cortisone-like drug called Triamcinalone, according to a report by two University of Pennsylvania medical scientists. The investigation involved 14 persons, 13 adults and one child. For nine of the acutely sunburned adults, complete relief was obtained within 24 hours. Triamcinalone was taken orally every six hours. Four of the more severely burned adults who had swelling of the

Continued on page 176a



If she needs nutritional support... she deserves


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LEDERLE LABORATORIES, a Division of AMERICAN CYANAMID COMPANY
Pearl River, New York





he's
comfortable
now

No more
coughing.
His physician prescribed
pleasant-tasting,
cream-mint
Syrup PHENERGAN FORTIS.

He's relaxed,
less irritable, more cheerful.
No more coughing,
nausea or vomiting.

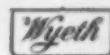
He'll sleep well too
(and so will his parents).

*for symptomatic relief of
coughing, emesis, and restlessness*

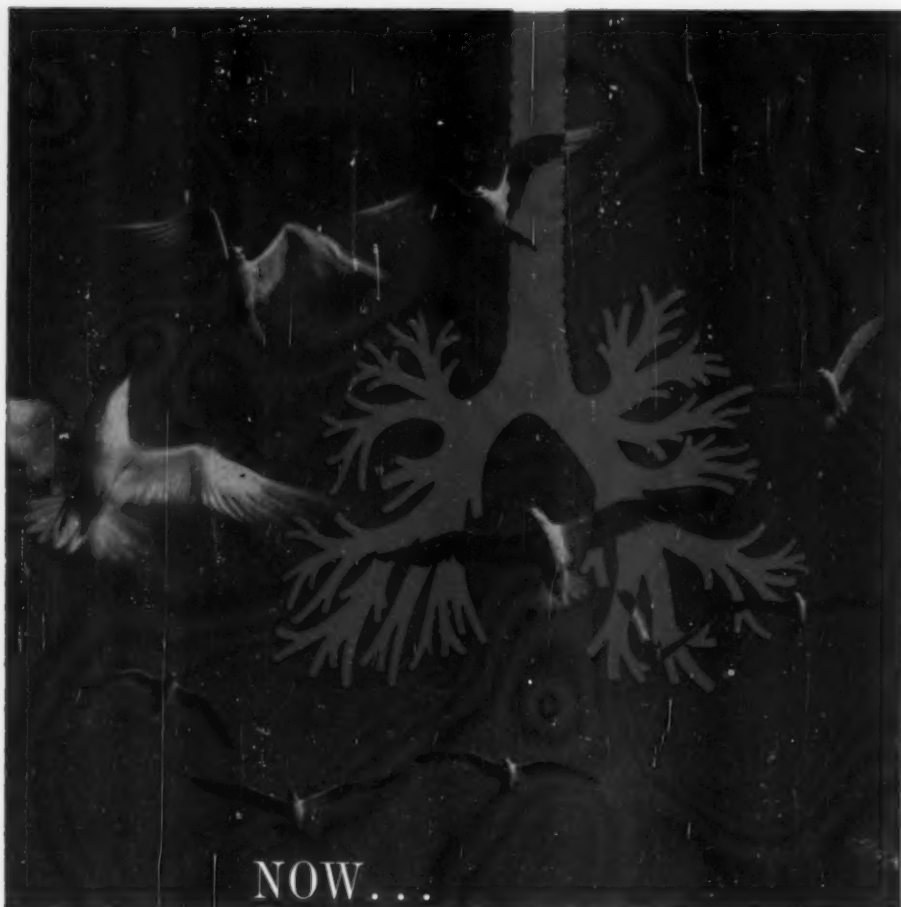
SYRUP
PHENERGAN® FORTIS

25 mg./5 cc.

HYDROCHLORIDE
Promethazine Hydrochloride, Wyeth



Philadelphia 1, Pa.



NOW...

in bronchial asthma

PREDNAMINTM tablets

"potentiated prednisone"

*breaks the
"side-effects barrier"
to full, long-range
corticosteroid benefits*

PREDNAMIN brought excellent or good relief to 76% of 50 asthmatic patients . . . all of whom had responded unsatisfactorily to one or more years of specific therapy and to epinephrine, ephedrine and aminophylline. Although treatment was prolonged and continuous, only 2 patients required withdrawal of PREDNAMIN because of side effects.*

The optimally balanced PREDNAMIN combination magnifies the efficacy of small doses of prednisone . . . but leaves corticosteroid hazards at a low-dose minimum. With PREDNAMIN, problem asthmatics and patients with atopic and contact dermatoses need no longer be deprived of continuing and often dramatic corticosteroid benefits.

Each PREDNAMIN Tablet contains prednisone 2.5 mg., chlorphenpyridamine maleate 2.0 mg., and ascorbic acid 250.0 mg. Bottles of 30 and 100.

*Swartz, H.: To be published.



DOMÉ CHEMICALS INC.

New York • Los Angeles • Montreal

World Leader in Dermatologicals



KILLS THEM ALL

In Topical Infections, regardless of etiology, BETADINE OINTMENT destroys all pathogens present. BETADINE OINTMENT, a single topical agent, is a full-range pathogenicide—kills bacteria, fungi, protozoa, yeasts, and viruses on contact. Yet it is nonsensitizing, nonirritating, and nontoxic to normal skin tissue.

BETADINE OINTMENT • topical pathogenicide • fully effective against resistant strains • destroys gram-positive and gram-negative organisms • kills fungi, protozoa, yeasts, viruses • no development of resistant strains on prolonged use • provides protective barrier against invading pathogens • nonsensitizing . . . relieves pain • color indicates germicidal protection • applies easily . . . may be bandaged.

indications: primary and secondary skin infections including pyoderma, mycotic and bacterial infections, eczema, furunculosis, minor burns, as well as staph. aureus and pseudomonas infections.

administration: apply liberally over affected area as often as needed, bandage if desired.

supplied: one ounce tube.

BETADINETM OINTMENT

(CONTAINS POVIDONE-IODINE)

TOPICAL PATHOGENICIDE . . . KILLS PATHOGENS ON CONTACT

established in 1905



TAILBY-NASON COMPANY, INC., DOVER, DELAWARE

face, hands, and feet accompanied by chills and fever required 42 hours of therapy before complete relief was obtained. In addition to the drug therapy, cool starch baths were given every two to four hours for 20-minute periods, and cool water compresses were applied to the blistered and swollen areas. Neither ointments nor dressings were used.

Blood-Sugar Response of Normal Adults to Dextrose, Sucrose, and Liquid Glucose

"The blood-sugar response to amounts of dextrose, sucrose, and liquid glucose equivalent to 45.4 g. of carbohydrate has been followed in nineteen subjects.

All these carbohydrates were rapidly absorbed and produced a rapid rise in blood-sugar to a maximum which usually was reached within 30 minutes.

The importance of this observation in relation to diagnostic glucose-tolerance tests is discussed. The technique commonly used will miss the peak blood-sugar level in some young normal subjects and thus result in a misleading flat curve.

Liquid glucose produced a more rapid rise than sucrose (difference significant at $P = 0.02$). The rise in the blood-sugar was predominantly due to glucose, no matter which carbohydrate was administered. There was, however, some evidence that the amount of non-glucose reducing substances in the blood increased after sucrose, but further work is required."

SIR CHARLES DODDS, F. A. FAIRWEATHER,
A. L. MILLER, C. F. M. ROSE

The Lancet (1959) No. 7071, P. 488

Continued on page 180a

When weight gets out of control,
the dangers of "inflation" set in—
imposing an added strain on heart,
kidneys, blood vessels.

Keep your obese
patient on his diet...

SYNDROX[®]

—cures the desire for food and combats depression. The result is less interest in eating, more interest in other activities.

The Dangers
of Inflation



SYNDROX TABLETS 5 mg.

SLIXIT 5 mg. per 5 cc.

Dosage: $\frac{1}{2}$ to 1 tab. or tsp. 2 or 3 times a day. $\frac{1}{2}$ to 1 hr. before meals.

McNEIL

McNEIL LABORATORIES, INC.
Philadelphia 32, Pa.



Still
in the
picture
with...

NIATRICTM

TABLETS AND ELIXIR

To add life to years—not merely years to life . . . Niatric sharpens mental acuity and promotes a return to more normal social and physical activity for your aged patients.

In the Old Age Syndrome . . . Niatric relieves confusion, forgetfulness, irritability, depression and apathy—the penalties of advancing age.

- Niatric improves respiration and cerebral function
- Niatric improves circulation
- Niatric protects capillary integrity
- Niatric prevents brain tissue hypoxia

Niatric contains:	Each Tablet:	5 cc. Elixir:
Pentylentetrazol	100 mg.	100 mg.
Nicotinic Acid	50 mg.	50 mg.
Ascorbic Acid	100 mg.	100 mg.
Bioflavonoids	100 mg.	-----
Alcohol	-----	15%

Average Dose: 1 tablet or 1 tsp. (5 cc.) t.i.d.
 Supply: Tablets, bottles of 100 and 500.
 Elixir, bottles of 1 pint.

Send now for samples and literature...



B. F. ASCHER AND COMPANY, INC.

Ethical Medicinals / Kansas City, Missouri



**when emotional turbulence threatens
medical or surgical care**

Fear, agitation, and resistance often hinder medical diagnosis and treatment.

SPARINE alleviates agitation, overcomes resistance, placates fears.

In addition to calming the patient, SPARINE controls other interfering symptoms: nausea, vomiting, and hiccups.

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Promazine Hydrochloride, Wyeth

INJECTION

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A Century of Service to Medicine



THE COUGH THAT DIDN'T ROCK THE BOAT

HIS PHYSICIAN PRESCRIBED

BENYLIN[®]

EXPECTORANT

BENYLIN EXPECTORANT contains in each fluidounce:

Benadryl[®] hydrochloride (diphenhydramine hydrochloride,

Parke-Davis) 80 mg.

Ammonium chloride 12 gr.

Sodium citrate 5 gr.

Chloroform 2 gr.

Menthol 1/10 gr.

Alcohol 5%

supplied. BENYLIN EXPECTORANT is available in 16-ounce and 1-gallon bottles.

PARKE, DAVIS & COMPANY
DETROIT 32, MICHIGAN



21058



while they are planning
their family

they need your help
more than ever



the most widely prescribed contraceptive

WHENEVER A DIAPHRAGM IS INDICATED

Stiletto Heels

"Stiletto heels have been now fashionable for some time and they are being worn by a large number of people. The designers and inventors of these heels must have overlooked the serious injuries which they may inflict accidentally. The stiletto heel consists of a long narrow stem made of wood, but more often of aluminum. A round steel plate, one-quarter to five-sixteenths of an inch (6.5-8 mm.) in diameter, is screwed into the distal end of the heel, which is of the same diameter. After the shoe has been worn a little, the edge of the plate becomes serrated and in parts of razor-sharpness. The whole plate becomes like an inverted mushroom, broader at its base. The pressure exerted on the plate by a person of about 8 stone (51 kg.) in weight may reach about 1,800 lb. per square inch (126 kg. per sq. cm). The wounds caused by such heels when a person is accidentally trodden on or kicked by someone wearing them, can be very serious.

The following case illustrates this fully and shows the long invalidism which may result from such an injury.

A patient of mine, a schoolgirl, aged 14, had her right foot trodden on while traveling in a bus on December 9. The injury was caused by a stiletto heel while its wearer was leaving the bus. The patient was seen the same day, when she had an irregular wound of about 1 in. (2.5 cm.) in diameter on the dorsum of the foot about the middle of the shafts of the second and third metatarsals. Marked tenderness and swelling developed two days later and the girl was unable to use her foot. There were no signs of attempted healing on December 20, and the size of the wound was then 2 by 1.5 in. (5 by 3.75 cm.). After five days of parenteral penicillin the swelling and the tenderness began to subside. On January 7, the size of the wound was 1.25 in. (3.1 cm.) in diameter. The patient was then still walking with great difficulty, and this was over five weeks after the injury.

The girl was fortunate not to have the tendons of the dorsum of her foot severed, which could easily have happened in view of the enormous pressure that may be exerted by the worn end of a stiletto heel.

A. FRY
Letter in Brit. Med. J., (1959), I:791

The Use of Meprobamate in Tetanus

The authors point out that tetanus is still somewhat prevalent in the United States, and common in many areas of the world where medical hygiene is poor. The prognosis in tetanus is more closely related to the rapidity of the development of symptoms than to any other factor. In general, if the elapsed interval between the first symptom and the first spasm is less than 24 hours, mortality is about 90 percent, since these seizures involve all muscles of the body, extensor spasms predominate. Control and prevention of these seizures constitute the most important aspect of treatment. Sedative drugs to be effective must be used in an amount to keep the patient in a state of perpetual coma, thereby increasing the hazards in the situation. In searching for an agent that could be used with a relatively wide de-

gree of safety, and which would control seizures without affecting respiration, blood pressure, or consciousness, meprobamate (Miltown) was used intramuscularly. Miltown was supplied in ampules containing 400 mg. in 5 cc. of polyethylene glycol. The drug must be given intramuscularly since polyethylene glycol may cause phlebitis if given intravenously. The adult dosage used was 400 mg. every three or four hours. The onset of effectiveness was within 10 to 15 minutes, while the duration was three to four hours. By injection the dose was much more effective than ten times the amount given orally. However, in convalescent patients or in those with a relatively mild involvement, the oral administration of 800 mg. four times a day was found to be adequate. The report continues that Meprobamate had a tranquilizing action which allayed apprehension, making the patient more calm and comfortable and simplifying the nursing problem. Experience with intramuscularly administered meprobamate has been so remarkable that the authors consider it the most valuable agent in the management of tetanus.

MEYER A. PERLSTEIN, M.D.
J.A.M.A. (1959), Vol. 170, No. 16, P. 1902

Continued on the following page



Antibody Response to Booster Dose of Polio Vaccine

"A booster dose of poliomyelitis vaccine given to 111 adolescents and adults 6 to 12 months after primary immunization produced a good response to types 2 and 3. At this time all these subjects, except four, still had detectable antibody induced by their initial course of vaccination. With type 1 a third had lost their antibody and these responded poorly compared with those in whom it was still present. In these poor responders to type 1, a fourth dose appeared to produce a booster response to this type.

It is probable that in the age groups studied at least a threefold increase in the amount of type 1 antigen in poliomyelitis vaccine will be necessary to give satisfactory antibody responses after three doses in all subjects."

"Thanks are due to the headmaster and boys of Epsom College and to all the other people who so kindly co-operated in this study, and also to the Ministry of Health for the supply of some of the vaccine used in it."

DR. J. O'H. TOBIN

Brit. Med. J. (1959) No. 5122, P. 613

MEDICAL TEASERS

Answer to puzzle on page 47a

I	L	L	J	E	C	O	R	I	N	A	G	O
D	I	E	A	O	A	U	N	E	O			
E	E	G	W	R	I	N	K	L	E	T	E	N
	A	H	S	L	Y	E	L	E	I			
G	A	L	A	B	X	A	A	C	T	H		
A	C	L	I	L	I	U	M	R	B	Y		
S	G	O	L	D	S	N	O	S	E	D		
E	Y	E	O	U	S	O	I	L	T	A	R	
O	N	O	T	O	S	O	P	I	A	O		
U	R	P	U	N	I	O	N	R	A	N		
S	E	M	I	S	G	S	O	G	L	E		
	E	A	R	W	H	O	B	N	A			
O	R	D	U	R	E	T	H	R	A	L	E	G
R	E	I	M	I	M	G	E	A	R			
A	D	A	P	E	R	O	S	I	S	A	R	M

Triac "Stosstherapy" in Sporadic Goitrous Cretinism

"The effects of the short-term administration of large amounts of triiodothyroacetic acid (triac)—that is, 90 mg. within nine days—followed by the complete cessation of substitution therapy, were studied in a 16-year-old girl with familial sporadic cretinism and goitre.

As in the case of her elder brother, in whom the same procedure had on two occasions resulted in the maintenance of a clinically euthyroid state for about seven and six months respectively, triac stostherapy produced complete euthyroidism, which also lasted about six months. A previous administration of 30 mg. of triac within three days had resulted only in a short-lived remission lasting about three or four weeks.

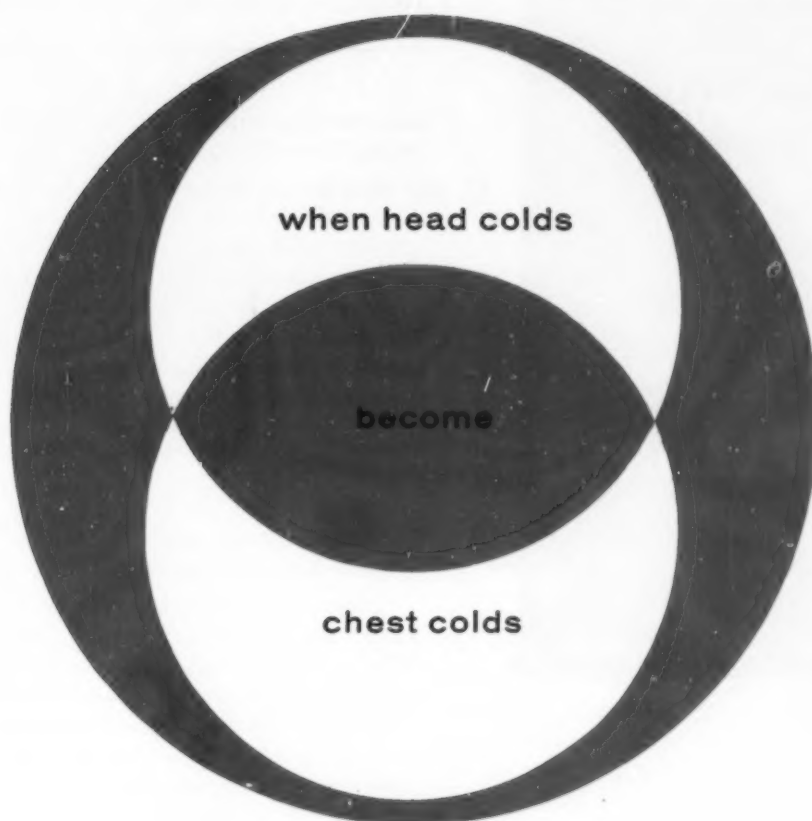
It was concluded that the effects of triac stostherapy depend on dosage, and that both patients can be maintained in a euthyroid state by the biannual or triannual administration of stostherapy in suitable doses.

Although both siblings clinically reacted alike to the triac stoss with 90 mg., the behavior of the thyroid gland with regard to size and function differed. In the brother the diffuse and nodular goitre was completely suppressed, remaining absent during each remission, and thyroid function became practically normal, as demonstrated by the I^{131} uptake and serum P.B.I. In the sister only the diffuse goitre disappeared, while the nodules remained palpable, though much reduced in volume. I^{131} uptake over the thyroid even attained 'hyperthyroid' levels; yet the serum P.B.I. was found to be normal (in the brother the thyroid function was studied three and four months after the cessation of stostherapy and in the sister two months after). Some theoretical implications of triac stostherapy are discussed."

HERMAN ZONDEK, HANNAH E. LESZYNSKY,
GERDA W. ZONDEK

Brit. Med. J. (1959), I:342

Concluded on page 184a



Novahistine-DH*

LIQUID

controls cough spasm and decongests air passages. Novahistine combined with dihydrocodeinone relieves respiratory congestion and controls useless, exhausting cough. And the delicious grape flavor of Novahistine-DH makes it appealing to both adults and children. Each 5 cc. teaspoonful contains: phenylephrine HCl, 10 mg.; prophenpyridamine maleate 12.5 mg.; dihydrocodeinone bitartrate, 1.66 mg.; chloroform, approx. 13.5 mg., and l-menthol, 1 mg. Exempt narcotic. ■ *And for all-day or all-night relief*—two long-acting Novahistine-DH Cough Tablets will quiet cough and relieve bronchial congestion for 8 to 12 hours.

PITMAN-MOORE COMPANY • DIVISION OF ALLIED LABORATORIES, INC. • INDIANAPOLIS 6, INDIANA

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IN
duodenal ulcer

KEEPS THE
MIND OFF THE
STOMACH....
THE STOMACH
FREE OF PAIN

Milpath[®]
Milthown + anticholinergic

*relieves anxiety and tension
for enhanced antispasmodic effect*


WALLACE LABORATORIES

for therapy
of overweight patients

- d-amphetamine
depresses appetite and elevates mood
- meprobamate
*eases tensions of dieting
(yet without overstimulation, insomnia
or barbiturate hangover)*

..

BAMADEX[®]
MEPROBAMATE WITH D-AMPHETAMINE SULFATE LEDERLE

is a logical combination in appetite control

Each control tablet (pink) contains: meprobamate, 400 mg.; d-amphetamine sulfate, 5 mg.
Dosage: One tablet one-half to one hour before each meal.



LEDERLE LABORATORIES
A Division of AMERICAN CYANAMID COMPANY, Pearl River, New York

MODERN THERAPEUTICS—Concluded

**Subacute Degeneration
During Liver Therapy**

"Two patients with pernicious anemia who relapsed and developed subacute combined degeneration while receiving treatment with liver extracts are described. The relapses were probably due to the low vitamin B₁₂ content of the liver extracts. Attention is drawn to the poor vitamin B₁₂ content of most liver extracts, and the practical importance of this is emphasized."

J. F. ADAMS and G. C. TIMBURY
Brit. Med. J. (1959), 1:834

**Sjögren's Syndrome and
Systemic Lupus Erythematosus**

"Clinical and pathological evidence is produced showing that Sjögren's syndrome, Mikulicz's disease, and Felty's syndrome are manifestations of systemic lupus erythematosus.

Of 28 patients with Sjögren's syndrome examined, 10 had L.E. cells in the peripheral blood and two of these had Mikulicz's disease and one Felty's syndrome.

Furthermore, it is noted that there are many resemblances between Sjögren's syndrome and lymphadenoid goitre, and it is suggested that they may have etiological factors in common.

The clinical course of systemic lupus erythematosus may extend over many years, and at times the patient may be in apparent good health. During these periods of remission minor evidence of clinical activity, such as arthralgia, sensitivity to the sun, and chilblains, may be discovered. Most cases of Sjögren's syndrome reported in the literature are in this benign phase. Most published reports on cases of Sjögren's syndrome give only a brief cross-section in space-time of the natural history of the disease. A picture of the whole life-history of a number of cases of the syndrome, including necropsies, would, I feel sure, produce even more evidence that Sjögren's syndrome is a form of systemic L.E."

J. M. HEATON
Brit. Med. J. (1959) 1:469



NEWS AND NOTES

Selected items of current interest from the fields of medical research and education

Psychoanalytic Group

The formation of the New Jersey Psychoanalytic Society, an affiliate of the American Psychoanalytic Association and the International Psychoanalytic Association, took place recently. The Society became the twentieth affiliate society of the American Psychoanalytic Association.

Narcotic Unit in New York City

The first patients will soon be admitted to the State's research unit in narcotic addiction, according to Dr. Paul H. Hoch, Commissioner of Mental Hygiene. There will be 55 beds for inpatients and facilities for treating about 150 outpatients. In the course of a year, several hundred patients can be treated. The unit, located at Manhattan State Hospital, Wards Island, New York City, is the first full-time narcotics research unit in the State which will combine laboratory, inpatient and outpatient operations. It has been organized for research purposes, and will concentrate on basic investigations in an effort to determine primarily the causes of narcotic addiction and to develop better treatment methods. The work of the center will be integrated with the new program of treatment and clinical research to be conducted by the City of New York. At the present time, personnel are being trained for the unit, and are participating in a training course at the U.S. Public Health Service Hospital at Lexington, Kentucky.

Admissions Problems Studied

Admissions officers representing medical schools in ten states met recently at the University of Michigan Medical Center. They considered general admissions problems, scholarships, and methods for weighing the academic performance of medical students. This careful pre-admission screening of applicants is a distinctive feature of American medical schools. Only students believed to have the mental, physical, and moral qualities needed to be a doctor are selected.

Joint Center for Urban Studies

A Joint Center for Urban Studies, established by Massachusetts Institute of Technology and Harvard University, will search out basic facts in the tangled problems of big city growth in this country and abroad. The aim is to establish an international center for advanced research, for documentation, and for stimulating inter-university efforts and collaboration in the urban field. The Center will bring together the research work of eminent scholars in the social sciences, in the humanities, in public health, education, business, public administration, natural science and law, as well as in city planning, architecture, and engineering. By providing a common center with extensive research opportunities, important but neglected fields of urban and regional research can be investigated.

Continued on page 188a

“R Day”

*for the neuritis patient
can be tomorrow*

“R Day”—when pain is relieved—can come early for patients with inflammatory (non-traumatic) neuritis if treatment with Protamide is started promptly after onset.

Protamide is the therapy of choice for either early or delayed treatment, but early use assures greatest efficacy.

For example, in a 4-year study¹ and a 26-month study² a combined total of 374 neuritis patients treated with Protamide during the first week of symptoms responded as follows:

60% required only 1 or 2 daily injections for complete relief

96% experienced excellent or good results with 5 or less injections

Thus, the neuritis patient's first visit—especially an early one—affords the opportunity to speed his personal “R Day.”

Protamide is available at pharmacies and supply houses in boxes of ten 1.3 cc. ampuls. Intramuscularly only, one ampul daily.

PROTAMIDE®



PAGE 794

Sherman Laboratories

Detroit 11, Michigan



1. Lehrer, H. W., et al.: Northwest Med. 75:1249, 1955.

2. Smith, Richard T.: New York Med. 8:16, 1952.



now...
uncommon
relief
for the
common
cold

'EMPRAZIL'

TABLETS

provide total therapy

*nasal decongestant • antihistaminic
analgesic • antipyretic*

for symptomatic relief

*aches • fever • pain • respiratory tract
congestion*

Dosage: Adults and older children: One or two tablets t.i.d. as required. Children 6 to 12 years of age: One tablet t.i.d. as required.

Supplied: Bottles of 100 and 1000.

Each orange and yellow layered tablet contains:

'Sudafed'® brand Pseudoephedrine Hydrochloride	20 mg.
'Perazil'® brand Chlorcyclizine Hydrochloride	15 mg.
Acetophenetidin	150 mg.
Aspirin (Acetylsalicylic Acid)	200 mg.
Caffeine	30 mg.

Complete literature available upon request.



BURROUGHS WELLCOME & CO.
(U.S.A.) INC., Tuckahoe, N. Y.

**Dr. Ralph E. Snyder
Named College President**

Dr. Ralph E. Snyder, Dean of New York Medical College, was elected President of the Institution by the Board of Trustees. Dr. Snyder was appointed Dean in 1953, and has functioned as chief executive officer of the Institution since 1957. He will continue the title of Dean in addition to that of President.

New York Medical College was founded in 1860, with William Cullen Bryant as its first President. The centennial will be celebrated with a year-long series of academic events.

Dr. Snyder is also head of the Flower and Fifth Avenue Hospital, the New York Medical College-Metropolitan Hospital Center, which is the city's newest medical center, being composed of the College, the Flower and Fifth Avenue Hospital, the Metropolitan Hospital and the Bird S. Coler Hospital.

University Hospital, New York City

With the erection of the new University Hospital, which will replace the present structure of that name, the 50-million-dollar development program of the New York University-Bellevue Medical Center will have been completed. The 19-story building, in addition to its 600-bed capacity, will contain a number of special institutes and pavilions, among them the Institute of Neuromuscular Diseases, the Institute of Reconstructive Plastic Surgery, the William J. Wollman Memorial Pavilion for Children, the Lila Motley Radiation Pavilion, the Louis Altschul Cardiac and Hypertension Clinic, the Irvington House Institute for Rheumatic Fever and Allied Diseases, the Milton B. Rosenbluth Diagnostic Clinic, the Julius S. Rippel Laboratories, and the Alfred P. Sloan Radioisotope Laboratory.

Continued on page 192a



If they need nutritional support... they deserve

GEVRAL

Vitamin-Mineral Supplement Lederle

CAPSULES—14 VITAMINS—11 MINERALS

Each capsule contains:	
Vitamin A	5,000 U.S.P. Units
Vitamin D	500 U.S.P. Units
Vitamin B ₁₂ with AURITRIN [®]	
Intrinsic Factor Concentrate	1/15 U.S.P. Oral Unit
Thiamine Mononitrate (B ₁)	5 mg.
Riboflavin (B ₂)	5 mg.
Niacinamide	15 mg.
Folic Acid	1 mg.
Pyridoxine HCl (B ₆)	0.5 mg.
Ca Pantothenate	5 mg.
Choline Bitartrate	50 mg.
Inositol	50 mg.
Ascorbic Acid (C)	50 mg.
Vitamin E (as tocopheryl acetates)	10 I.U.
L-Lysine Monohydrochloride	25 mg.
Rutin	25 mg.
Ferrous Fumarate	30 mg.
Iron (as Fumarate)	10 mg.
Iodine (as KI)	0.1 mg.
Calcium (as CaHPO ₄)	157 mg.
Phosphorus (as CaHPO ₄)	122 mg.
Boron (as Na ₂ B ₄ O ₇ · 10H ₂ O)	0.1 mg.
Copper (as CuO)	1 mg.
Fluorine (as CaF ₂)	0.1 mg.
Manganese (as MnO ₂)	1 mg.
Magnesium (as MgO)	1 mg.
Potassium (as K ₂ SO ₄)	5 mg.
Zinc (as ZnO)	0.5 mg.

LEDERLE LABORATORIES, a Division of AMERICAN CYANAMID COMPANY, Pearl River, New York



FROM NEW **YOU CAN EXPECT MORE** **POLARAMINE® EXPECTORANT**

Because POLARAMINE Expectorant — Polaramine plus *d*-isoephedrine sulfate and glyceryl guaiacolate — Restores congested mucous membranes of the entire respiratory tract to normal...gently, rapidly...within only 15 to 30 minutes

- Relieves unproductive coughing by increasing respiratory tract fluid output and by facilitating expectoration
- Treats effectively the allergic components of respiratory illness
- Is *delicious*...a new, different flavor.

POLARAMINE Expectorant is particularly valuable for the relief of coughs and complications of allergic conditions and the allergic manifestations of respiratory illnesses.

Each teaspoonful (5 cc.) of POLARAMINE Expectorant contains 2 mg. POLARAMINE Maleate (dextchlorpheniramine maleate), 20 mg. *d*-isoephedrine sulfate and 100 mg. glyceryl guaiacolate.

Dosage: Adults, 1 or 2 teaspoonfuls, 3-4 times daily; Children, $\frac{1}{2}$ or 1 teaspoonful, 3-4 times daily.


Supply: 16 oz. bottles. SCHERING CORPORATION • BLOOMFIELD, NEW JERSEY

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LEDERLE INTRODUCES...

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greater antibiotic activity

Milligram for Milligram, DECLOMYCIN exhibits 2 to 4 times the activity of tetracycline against susceptible organisms. (*Activity level is the basis of comparison—not quantitative blood levels—since action upon pathogens is the ultimate value.**) Provides significantly higher serum activity level...

with far less antibiotic intake

DECLOMYCIN demonstrates the highest ratio of prolonged activity level to daily milligram intake of any known broad-spectrum antibiotic. Reduction of antibiotic intake reduces likelihood of adverse effect on intestinal mucosa or interaction with contents.

unrelenting peak
antimicrobial attack

The DECLOMYCIN high activity level is uniquely constant throughout therapy. Eliminates peak-and-valley fluctuation, favoring continuous suppression. Achieved through remarkably greater stability in body fluids, resistance to degradation and a low rate of renal clearance.

*Hirsch, H. A., and Finland, M.:
New England J. Med., 260:1099
(May 28) 1959.

DECLO

Demethylchlortetracycline Lederle

of antibiotic design




plus
"extra-
day"
activity

FOR PROTECTION
AGAINST
RELAPSE

DECLOMYCIN maintains activity for one to two days after discontinuance of dosage. Features unusual security against resurgence of primary infection or secondary bacterial invasion—two factors often resembling a "resistance problem"—enhancing the traditional advantages of tetracycline . . . for greater physician-patient benefit in the distinctive dry-filled, duotone capsule

immediately available as:
DECLOMYCIN Capsules, 150 mg.,
bottles of 16 and 100. Adult dosage:
1 capsule four times daily.

MYCIN[®]


LEDERLE LABORATORIES
a Division of
AMERICAN CYANAMID COMPANY
Pearl River, New York

Dr. Joseph C. Foust

Dr. Joseph C. Foust of Ionia, Michigan, has gone to spend a lifetime in the back country of Tanganyika, sponsored by the Foundation for All Africa, Inc., a nonsectarian group that devotes itself to furthering person-to-person contacts between Africans and Americans. Dr. Foust is taking along a truck, a house trailer, and his wife and six children. He is paying for the trip himself, and will devote his time to treating sick natives.

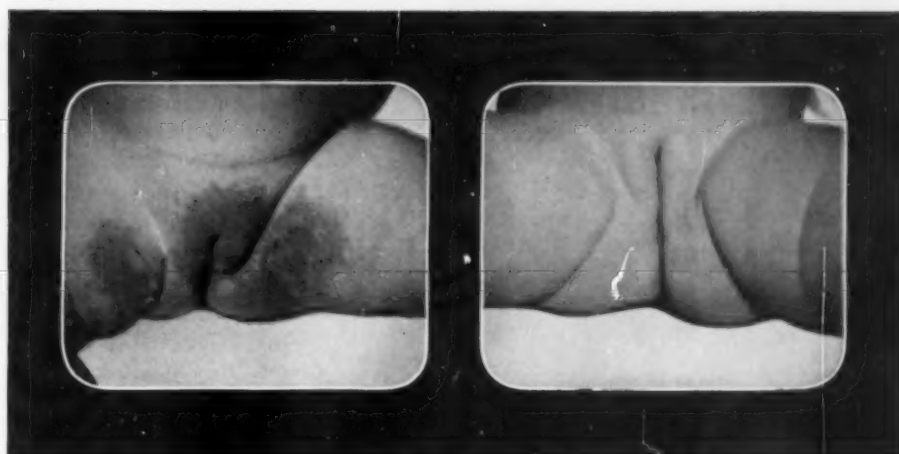
New Teaching and Research Center at University of Pennsylvania

The development of a new integrated teaching and research center for the basic biologic sciences at the University of Pennsylvania, to be closely associated with the University School of Medicine, was made possible by grants totaling \$1,903,345 from the Longwood Foundation, the U.S. Public Health Service, and the

Rockefeller Foundation. The new building for the Division of Biology will be interconnected with the Medical School's research building. The grants also make possible rehabilitation of portions of an existing zoology building, to which the new structure will be joined, and provide construction of greenhouses and a service laboratory. The new air-conditioned biology building will be about 36,000 square feet in area, and will include lecture and seminar rooms, a biological library, teaching laboratories, and research rooms. The new 4,000-square-foot service laboratory, which will connect with the remodeled zoology building, will contain air-conditioned animal quarters and climatically and atmospherically controlled experimental plant growth chambers. Construction of the biology building and renovation of the other buildings adjacent to it will accomplish the University's goal of physical integration of the Division of Biology.

Continued on page 194a





Before application of White's Vitamin A & D Ointment—Typical diaper rash with excoriation of skin.

After application of White's Vitamin A & D Ointment at every diaper change—Diaper rash has completely disappeared within one week.

Heal and Prevent Diaper Rash with White's Vitamin A & D Ointment

Apply at Every Diaper Change

HEALS • SOOTHES • PROTECTS

also beneficial for—Pressure Sores, Varicose and Chronic Ulcers; Nipple Care (fissured nipple); Episiotomy and Circumcision Wounds; Eczema, Detergent Dermatitis; Minor Burns and Wounds and Skin Abrasions.


Supplied in 1½ and 4 oz. tubes; 1 lb. "nursery" jars and 5 lb. "ward" containers.

WHITE LABORATORIES, INC.



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The Balanced Acne Therapy

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KELGY LABORATORIES
NEW YORK 35, N. Y.

a
logical
combination
for
appetite suppression

meprobamate *plus* d-amphetamine

... suppresses appetite ... elevates mood
... reduces tension ... *without* insomnia,
overstimulation, or barbiturate hangover.

AMPHETAMINE-SALICYLATE

BAMADEx

Each coated tablet (pink) contains: meprobamate, 400 mg.; d-amphetamine sulfate, 5 mg.
Dosage: One tablet one-half to one hour before each meal.



LEDERLE LABORATORIES
A Division of AMERICAN CYANAMID COMPANY, Pearl River, New York

NEWS AND NOTES—Continued

Presbyterian-St. Luke's Hospital, Chicago

The complete physical merger of Chicago's Presbyterian and St. Luke's Hospitals in the City's West Side Medical Center has been accomplished. The two institutions were merged in 1956, and their combination into the new Presbyterian-St. Luke's Hospital has created an institution with a bed capacity of 900. The new hospital is the only private voluntary nonprofit hospital in the West Side Medical Center. It is affiliated with the University of Illinois College of Medicine in the Medical Center and is an integral part of the University's teaching program.

Menière's Disease

A surgical operation so delicate that it would have to be performed under a microscope has been suggested to correct the merciless attacks of vertigo which strike victims of Menière's disease. The new procedure calls for destruction of the cochlea only; heretofore, surgeons destroyed the entire inner ear to relieve the condition.

Menière's disease is marked by fluctuating deafness, ringing in the ears, and waves of vertigo, nausea and vomiting. Exact cause of the disease has long been a medical enigma. Recent findings at the University of Michigan indicate that the symptoms occur when a tiny membrane ruptures deep in the inner ear. Called Reissner's membrane, it normally separates two different fluids that circulate within the cochlea. The investigators believe that mixing these fluids causes a sudden chemical unbalance which results in loss of hearing and dizziness. As the disease progresses, it gradually involves the whole inner ear. Meanwhile, the membrane is likely to heal itself temporarily, then break open again. This could explain the periodic attacks which typify Menière's disease. It is believed that one way to prevent the attacks is the destruction of the cochlea by surgery.

Continued on page 200a

**faster
healing
at any location**

CHYMAR®

Buccal/Aqueous/Oil

superior anti-inflammatory enzyme

**controls inflammation,
swelling and pain**

Chymar averts or rapidly reduces objective and subjective signs of inflammation of all types. It dissipates edema and hematoma, improves local circulation, reduces pain and accelerates healing. Side effects that have been observed with steroid-type anti-inflammatory agents do not occur with Chymar.

thrombophlebitis
cellulitis
asthma
bronchitis
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pelvic inflammatory
disease
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ulcerations
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CHYMAR Buccal Crystallized chymotrypsin in a tablet formulated for buccal absorption. Bottles of 24 tablets. Enzymatic activity, 10,000 Armour Units per tablet.

CHYMAR Aqueous Solution of crystallized chymotrypsin in sodium chloride injection for intramuscular use. Vials of 5 cc. Enzymatic activity, 5000 Armour Units per cc.

CHYMAR Suspension of crystallized chymotrypsin in oil for intramuscular injection. Vials of 5 cc. Enzymatic activity, 5000 Armour Units per cc.

ARMOUR PHARMACEUTICAL COMPANY • KANKAKEE, ILLINOIS

Armour Means Protection



This is Panalba
performance...



in sinusitis

... into a mixed culture of the four organisms commonly involved in sinusitis ... *Str. hemolyticus*, *D. pneumoniae*, *H. influenzae* and *Staph. aureus* (in this case a resistant strain) ... we introduce the five most frequently used antibiotics.

Twenty-four hours later (in this greatly enlarged photograph), note that only *one* of the five leading antibiotics has stopped *all* the organisms, including the resistant staph! This is Panalba.

In your next patient with sinusitis ... in *all* your patients with potentially-serious infections ... provide this extra protection with your prescription:

Dosage—1 or 2 capsules 3 or 4 times a day.
Supplied—Capsules containing Panmycin phosphate equivalent to 250 mg. tetracycline hydrochloride, and 125 mg. Albamycin as novobiocin sodium, in bottles of 16 and 100.
Now available: new Panalba Half-Strength Capsules in bottles of 16 and 100.

Panalba*

(Panmycin* Phosphate plus Albamycin*)

The broad-spectrum
antibiotic of
first resort

Upjohn

The Upjohn Company
Kalamazoo, Michigan

TRADEMARK, REG. U. S. PAT. OFF.

NOW... SAFER, EFFECTIVE TRANQUILIZER THERAPY

tranquilization

anti-emetic

greater specificity
of tranquilizing action
—divorced from such
"diffuse" effects as
anti-emetic action
—explains why

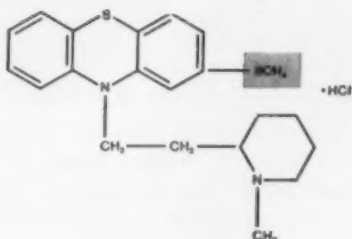
Mellaril

THIORIDAZINE HCl

is virtually free of such toxic effects as — jaundice — Parkinsonism — blood dyscrasia

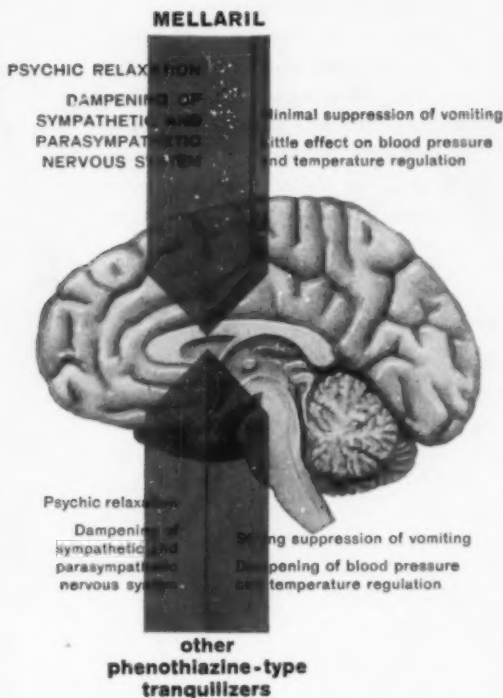
"Thioridazine [MELLARIL] is as effective as the best available phenothiazine, but with appreciably less toxic effects than those demonstrated with other phenothiazines. ... This drug appears to represent a major addition to the safe and effective treatment of a wide range of psychological disturbances seen daily in the clinics or by the general practitioner."

a new advance in tranquilization:
greater specificity of tranquilizing action results in fewer side effects



The presence of a thiomethyl radical ($S-CH_3$) is unique in Mellaril and could be responsible for the relative absence of side effects and greater specificity of psychotherapeutic action. This is shown clinically by:

- 1 A specificity of action on certain brain sites in contrast to the more generalized or "diffuse" action of other phenothiazines. This is evidenced by a lack of appreciable anti-emetic effect.



- 2 Less "spill-over" action to other brain areas — hence, absence of undue sedation, drowsiness or autonomic nervous system disturbances.
- 3 A notable absence of extrapyramidal stimulation.
- 4 Lack of impairment of patient's normal drive and energy.
- 5 Virtual freedom from such toxic effects as jaundice, photosensitivity, skin eruptions, blood forming disorders.

INDICATION	USUAL STARTING DOSE	TOTAL DAILY DOSAGE RANGE
ADULTS: Mental and Emotional Disturbances: MILD —where anxiety, apprehension and tension are present MODERATE —where agitation exists in psychoneuroses, alcoholism, intractable pain, senility, etc. SEVERE —in agitated psychotic states as schizophrenia, manic depressive, toxic psychoses, etc.: Ambulatory Hospitalized	10 mg. t.i.d.	20-60 mg.
	25 mg. t.i.d.	50-200 mg.
	100 mg. t.i.d.	200-400 mg.
	100 mg. t.i.d.	200-800 mg.
CHILDREN: BEHAVIOR PROBLEMS IN CHILDREN	10 mg. t.i.d.	20-40 mg.

MELLARIL Tablets, 10 mg., 25 mg., 100 mg.

*Ostfeld, A. M.: Scientific Exhibit, American Academy of General Practice, San Francisco, April 6-9, 1959



Cancer Versus the Hereditary Factor

With collaboration from several scientific sources, staff members of the University of Pennsylvania School of Medicine have concluded an eight-year study of the possible hereditary factor in cancer. Twelve thousand relatives of 400 women were interviewed concerning the incidence of cancer of any type in themselves or in any of their relatives. Of the 400 women with whom the research was started, 200 had had cancer of the breast. This form of cancer was chosen because it is the most common form of neoplasm in women, and most easily diagnosed. The result of the research revealed no evidence of any unusual frequency of cancer either of the breast or elsewhere among the relatives of the women who had had mammary cancer. The study gave strong evidence toward refuting the tendency to associate the spread of cancer with heredity.



"I smell ether."

Gifts from the L. C. Hanna, Jr. Fund

A 20-million-dollar gift from the Leonard C. Hanna, Jr. Fund to Western Reserve University School of Medicine and University Hospitals of Cleveland will be used for building and endowment purposes. The gift is equally divided between the two institutions. The Fund trustees pointed out that the gift was in recognition of the joint development program of the medical school and the hospitals. President John S. Millis said that about seven of the ten-million-dollar gift designated for the University would go into an endowment fund to increase medical faculty salaries. The balance will go with matching Federal funds to modernize the present medical school building and to erect an additional five-story structure.

Brain Damage Studied

A grant of one million dollars for a five-year study on prevention of brain damage has been awarded to the University of Tennessee College of Medicine by the National Institute of Neurological Disease and Blindness, U.S. Public Health Service. This is the largest grant the medical units have ever received. Funds will be available at the rate of more than \$200,000 per year.

Dr. James G. Hughes, Professor of Pediatrics, will be the principal investigator. The Memphis study will involve close cooperation between several departments in the college. More than 40 people will be on the research team. About 750 women and their babies in units of City of Memphis Hospitals will be studied for five years.

The local project is part of a collaborative effort in which 15 medical schools in the Nation will participate, simultaneously collecting information on causes of brain damage. Information from the schools will be pooled, and it is expected that by the end of five years the schools will have studied more than 60,000 pregnant women and their offspring.

Continued on page 204a



in acute superficial thrombophlebitis

"A one-week course of therapy is generally sufficient to produce satisfactory resolution of the inflammatory process without recurrence."

Orbach, E. J.: J. Internat. Coll. Surgeons 31:165, 1959.

in arthritis and allied disorders

"Patients who experienced major improvement had prompt and almost complete relief of pain and stiffness, which could be maintained on a small maintenance dose."

Graham, W.: Canad. M.A.J. 79:634, (Oct. 15) 1958.

Butazolidin®

(brand of phenylbutazone)

tablets • alka capsules

BUTAZOLIDIN® (brand of phenylbutazone): Red-coated tablets of 100 mg.

BUTAZOLIDIN® Alka: Orange and white capsules containing BUTAZOLIDIN 100 mg.; dried aluminum hydroxide gel 100 mg.; magnesium trisilicate 150 mg.; homatropine methylbromide 1.25 mg.



ARDSLEY, NEW YORK

geigy

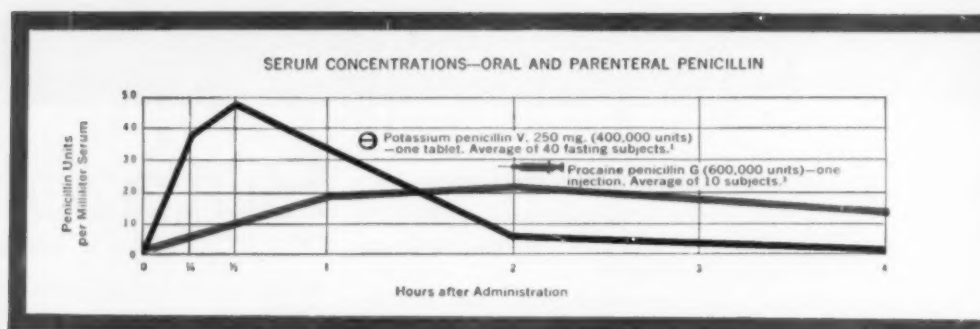
00189

in oral penicillin therapy

the speed of action you want
the reliability you need

In recent studies involving 107 subjects, effective penicillin blood levels were *consistently* produced within 15 minutes after administration of oral potassium penicillin V. Peak levels were obtained within a half-hour. Even after two hours, effective penicillin blood levels still persisted in *every* subject. At four hours, demonstrable blood levels existed in 93 per cent of subjects.¹⁻²

PEN·VEE K may be prescribed for
all infections responsive to oral penicillin
... and even many usually treated with parenteral penicillin



1. Peck, F.B., Jr., and Griffith, R.S.: Antibiotics Annual 1957-1958, Medical Encyclopedia, Inc., p. 1004. 2. Wright, W.W., and Welch, H.: Antibiotic Med. 5:139 (Feb.) 1958. 3. White, A.C., et al.: Antibiotics Annual 1955-1956, Medical Encyclopedia, Inc., p. 490.

The antibiotic that is prescribed most often for common bacterial infections . . .

penicillin

In a form that produces high penicillin blood levels rapidly and reliably . . .

potassium penicillin V

In two dosage strengths and preparations to assure acceptance by patients . . .

PEN·VEE[®]K

Liquid: Penicillin V Potassium for Oral Solution; Tablets: Penicillin V Potassium, Wyeth



LIQUID

flexibility of dosage form and high potency assure acceptability of full therapeutic dosage

SUPPLIED: *Liquid:* raspberry-flavored, 125 mg. (200,000 units) per 5-cc. teaspoonful; peach-flavored, 250 mg. (400,000 units) per 5-cc. teaspoonful. Supplied as vials of powder to make 40 cc. *Tablets:* 125 mg. (200,000 units) and 250 mg. (400,000 units) in vials of 36.



TABLETS



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logical
prescription
for
overweight patients

meprobamate plus d-amphetamine


...depresses appetite...elevates mood...eases
tensions of dieting...without overstimulation,
insomnia, or barbiturate hangover.

anorectic-ataractic

BAMADEX[®]

MEPROBAMATE WITH D-AMPHETAMINE SULFATE LEDEBIL

Each scored tablet (pink) contains: meprobamate, 400 mg., d-amphetamine sulfate, 5 mg.
Dosage: One tablet 4 or 6 times a day after meals with meals.



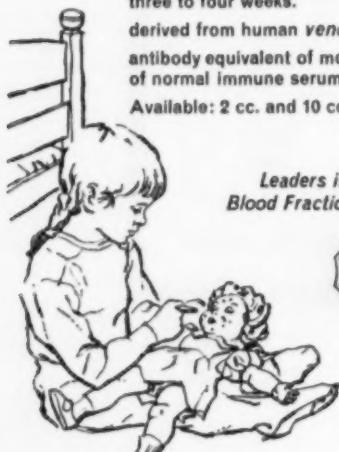
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A Division of AMERICAN CYANAMID COMPANY, Pearl River, N.Y.

Polio IMMUNE GLOBULIN CUTTER Gamma Globulin

as a measles modifier
reduces the severity of the attack, yet
allows full active immunity.

for measles prevention
confers effective passive immunity for
three to four weeks.

derived from human venous blood,
antibody equivalent of more than 40 cc.
of normal immune serum in each 2 cc.
Available: 2 cc. and 10 cc. vials.



Leaders in Human
Blood Fractions Research



NEWS AND NOTES—Continued

Cancer Study

The American Cancer Society will launch a medical statistical study to discover why some people may be more likely to become cancer sufferers than others. The study is expected to involve more than one million Americans, and will be the largest family study ever undertaken. The project, which will take more than six years to complete, will be conducted with the assistance of 50,000 trained American Cancer Society volunteers. The effect of environment on cancer will be probed, and an attempt to learn more about the means of early detection will be a primary objective of the study.

Dr. William N. Hubbard, Jr.

Dr. William N. Hubbard, Jr., Associate Dean of the New York University College of Medicine, has been appointed Dean of the University of Michigan Medical School, Ann Arbor. The Doctor is the fifth person to carry the title of dean and the eighth to serve as administrative head of the Medical School since it was founded in 1850.

Grant to University of Tennessee

The National Heart Institute of the National Institutes of Health of the U.S. Public Health Service has awarded the Division of Pediatrics of the University of Tennessee College of Medicine \$191,630 to support a graduate training program. Dr. James N. Etteldorf, Professor of Pediatrics, will direct the program which will extend over a five-year period. Funds will be allocated at the rate of \$38,326 per year. They will be used for special training of physicians who have completed or are completing their residency program in pediatrics. Such pediatricians will receive additional training in cardiovascular diseases and related fields. The training will prepare them for academic and research positions.

Continued on page 206a

"In all things, success
depends upon pre-
vious preparation..."

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ELDEC[®] KAPSEALS[®]

vitamin-mineral-hormone supplement

*help prepare your middle-aged patients
for healthy retirement years*

each KAPSEAL contains:

vitamins

Vitamin A	1,667 Units (0.5 mg.)
Vitamin B ₁ mononitrate	0.67 mg.
Ascorbic acid	33.3 mg.
Nicotinamide	16.7 mg.
Vitamin B ₃	0.67 mg.
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Vitamin B ₁₂ with intrinsic factor concentrate	0.033 USP Unit (oral)
Folic acid	0.1 mg.
Choline bitartrate	6.67 mg.
Pantothenic acid (as the sodium salt)	5 mg.

minerals

Ferrous sulfate (exsiccated)	16.7 mg.
Iodine (as potassium iodide)	0.05 mg.
Calcium carbonate	66.7 mg.

digestive enzymes

Taka-Diastase [®] (aspergillus oryzae enzymes)	20 mg.
Pancreatin	133.3 mg.

protein improvement factors

L-Lysine monohydrochloride	66.7 mg.
dl-Methionine	16.7 mg.

gonadal hormones

Methyl testosterone	1.67 mg.
Theelin	0.167 mg.

dosage: One Kapseal three times daily before meals. Female patients should follow each 21-day course with a 7-day rest interval.

packaging: ELDEC KAPSEALS are available in bottles of 100.



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Coming next month . . .

- ***The Treatment of Trivial Wounds***

By Edward S. Stafford, M.D., Associate Professor of Surgery, The Johns Hopkins University School of Medicine and The Johns Hopkins Hospital, Baltimore, Maryland.

- ***The Dressing of Open Wounds***

By R. F. Hagerty, M.D., and H. B. Othersen, M.D., Cancer Clinic and the Department of Surgery, Medical College of South Carolina, Charleston, South Carolina.

- ***Basic Considerations in Regional Anesthesia***

By L. W. Fabian, M.D., Professor and Chairman, Department of Anesthesiology, University of Mississippi Medical Center, Jackson, Mississippi and C. R. Stephen, M.D., Professor of Anesthesiology and Chairman of the Division of Anesthesiology, Duke University Medical Center, and M. Bourgeois-Gavardin, M.D., Associate Professor of Anesthesiology, Duke University Medical Center, Durham, North Carolina.

- ***Diagnostic Problems Presented by the Leukemoid Reaction***

By Jack D. Welsh, M.D., Research Fellow, National Institute of Arthritis and Metabolic Diseases, Department of Medicine, University of Oklahoma Medical Center, and Captain William F. Deany, USAF (MC), Department of Medicine, University of Oklahoma School of Medicine, Oklahoma City, Oklahoma.

- ***The Diagnosis of Hemorrhagic Disorders***

By Giovanni Raccuglia, M.D., and Frank H. Bethell, M.D., Thomas Henry Simpson Institute for Medical Research, University of Michigan, Ann Arbor, Michigan.

- ***Principles and Precautions Concerning Hypnosis in General Practice***

By Jacob H. Conn, M.D., Henry Phipps Clinic, The Johns Hopkins Hospital, Baltimore, Maryland.

- ***Abdominal Pain of Migrainous Origin***

By Walter C. Alvarez, M.D., Consultant Emeritus, Mayo Clinic, Rochester, Minnesota.

NEWS AND NOTES—Continued

Wistar Institute

The Wistar Institute of Anatomy and Biology, founded in 1818 as the Wistar Museum, has undergone extensive alterations to provide new laboratories and a new museum. It is staffed with a team of international scientists interested in problems in cellular biology. The Institute is believed to be the oldest privately endowed center for basic biological research in the United States. Expansion of the museum for research was made possible in 1892 by gifts from the Wistar family.

Cancer Research at the University of Michigan

The University of Michigan's Cancer Research Committee has announced grants totaling \$11,304, awarded to investigators for various studies of cancer. The Cancer Research Institute coordinates research by the various sciences at the University. Support for its activities comes from the American Cancer Society, and individual donors.

Henry Phipps Institute

The Henry Phipps Institute of the University of Pennsylvania was founded in 1903 for the study, treatment and prevention of tuberculosis. For the past five years the City of Philadelphia has provided clinic service on a contractual basis. With tuberculosis decidedly on the increase, indigent patients are becoming more numerous, which fact, together with rising costs, has placed an overwhelming financial burden on the Institute. The extent of the problem, and the need for adequate care of these patients has caused the City of Philadelphia to assume responsibility of the operation of the Dispensaries of the Institute. The Institute staff will be enabled to devote full time and funds to its original purpose—research in tuberculosis and other chronic diseases.

Concluded on page 208a

25,000,000
courses of
treatment—
and **NO**
“resistance”
problems

*Conservative estimate based on combined use of all FURACIN preparations since 1945.

FURACIN

In clinical use for more than 12 years and today the most widely prescribed single topical antibacterial, Furacin—like other nitrofurans—remains effective against pathogens which have developed, or are prone to develop, resistance to other antibacterial agents. There has been no evidence that originally sensitive strains of staphylococci or other bacteria lose their susceptibility to Furacin in any significant degree.

the wide-spectrum antibacterial exclusively for
topical use... in dosage forms for every topical need

Available as Soluble Dressing, Soluble Powder, or Solution. Also in Vaginal and Urethral Suppositories and in special formulations for eye, ear and nose.

one of the unique nitrofurans—products of Eaton's research
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150,000 PHYSICIANS
THE WORLD OVER DEPEND ON
THE INTEGRITY BEHIND THIS NAME

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logical
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meprobamate plus d-amphetamine

reduces appetite, elevates mood, relieves
tensions of dieting... without overstimulation,
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MEPROBAMATE WITH D-AMPHETAMINE SULFATE LIQUID

Each 5-ounce bottle contains 400 mg. of meprobamate and 40 mg. of d-amphetamine sulfate. It is a powerful appetite suppressant and mood elevator. It is also a powerful sedative and tranquilizer. It is a powerful muscle relaxant and is useful in the treatment of muscle spasms and tension.

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NEWS AND NOTES—Concluded

Creighton University Grant

A research grant totaling \$15,690 for a two-year period has been awarded to the Director of the Creighton University Department of Biology by the U.S. Public Health Service. The program will study the cellular metabolism aspects of growth control within the cell.

Metabolism in Human Bones

Two renewal grants for research have been awarded to Dr. Robert P. Heaney, Assistant Professor of Medicine at the Creighton University School of Medicine. One, valued at \$8,600, is from the U.S. Public Health Service. The other is a \$6,500 grant from the Atomic Energy Commission. Both are for studies that deal with the metabolism of calcium in human bones and with the metabolism of strontium in human bones. Through the projects, it is hoped to learn what controls metabolism, how fast bones are made and destroyed and other related factors. Relative handling of calcium and strontium by the body is being studied in relation to the current strontium fallout problem.

Training Grants at the University of Alabama

Value of research training grants and fellowships at the University of Alabama Medical Center, Birmingham, each year now exceeds one million dollars. Three years ago this figure was \$359,000. There are 103 active research and training grants in the Medical Center; of these, 88 are classified as research grants. They come from 14 different granting sources, chief of which is the U.S. Public Health Service. Fifteen training grants are designed to prepare promising young physicians, dentists, and basic scientists for careers as teacher-investigators in various health fields. Specific areas of training include psychiatry, neurology, endocrinology, cardiology, pathology, diabetes, epidemiology, and dentistry.

REFLECTION ON CORTICOTHERAPY:

CRITERIA

Tablet size?

Potency per milligram?

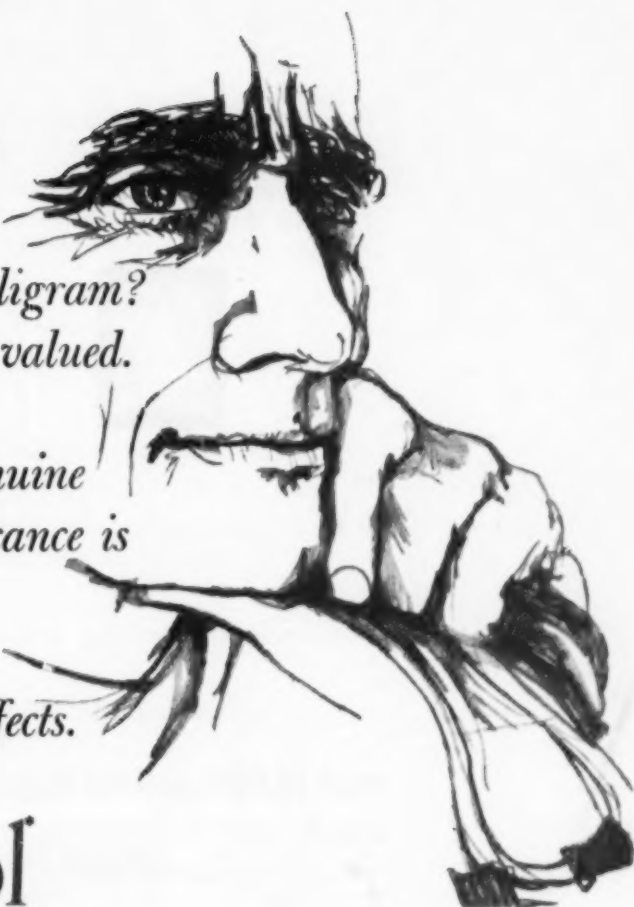
Often these are valued.

*But the only
criterion of genuine
clinical significance is
the ratio of
desired effects
to undesired effects.*

Hence...

Medrol

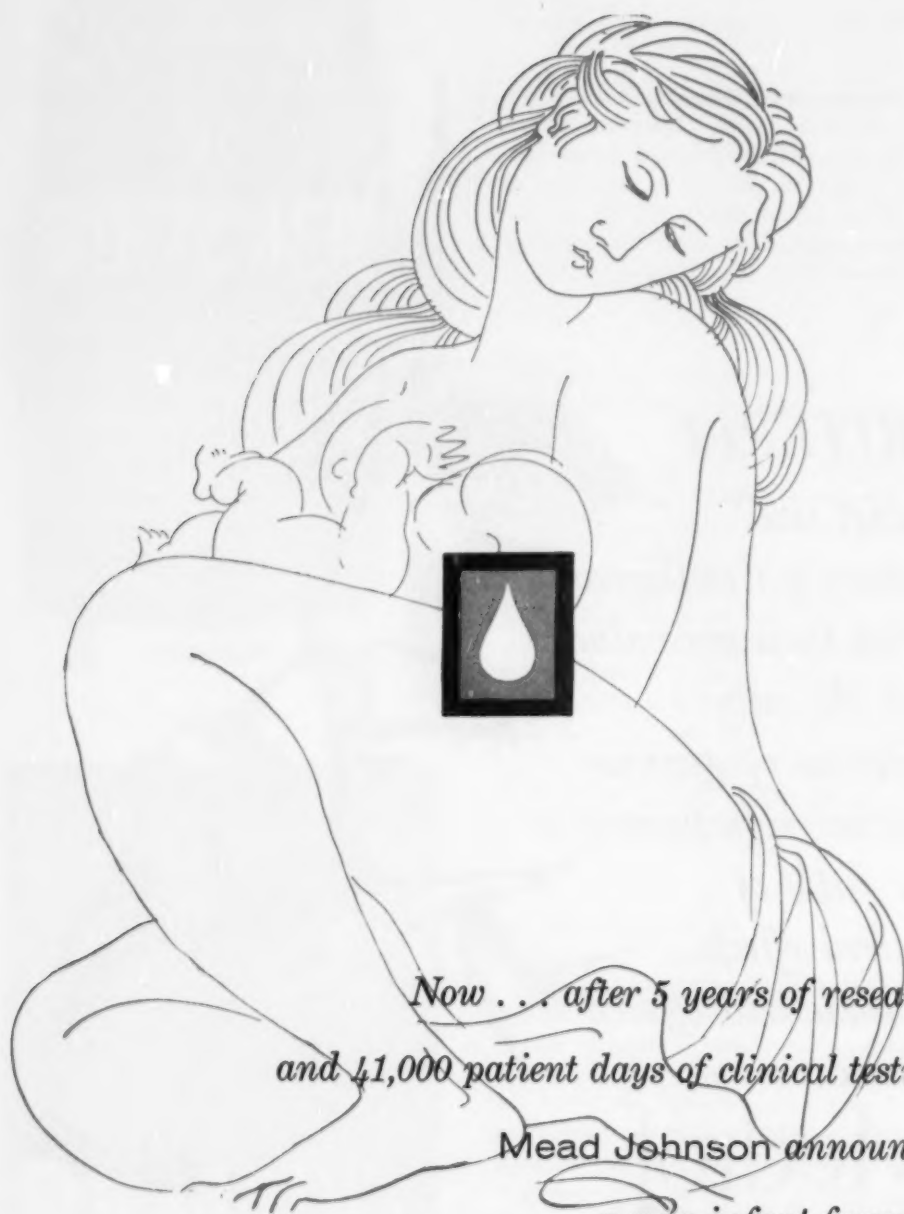
the corticosteroid that hits the
disease, but spares the patient



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KALAMAZOO, MICHIGAN

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*Now . . . after 5 years of research
and 41,000 patient days of clinical testing
Mead Johnson announces
a new infant formula*

*nearest to mother's milk'
in nutritional breadth and balance*

Enfamil*

Infant formula

*nearest to mother's milk'
in nutritional breadth and balance*

In a well controlled institutional study², using the Latin Square technic[†] for the first time in infant nutritional research, Enfamil was compared with three widely used infant formula products.

This formula produced:

weight gains greater than average

stool firmness between firm and soft... and

lower stool frequency.

NEAREST... to mother's milk in its pattern of protein, fat and carbohydrate by caloric distribution

NEAREST... to mother's milk in its pattern of vitamins and minerals (more vitamin D in accordance with NRC recommendations)

NEAREST... to mother's milk in its fat composition (no butterfat; no sour regurgitation)

NEAREST... to mother's milk in its ratio of saturated to unsaturated fatty acids

NEAREST... to mother's milk in its low renal solute load

ENFAMIL LIQUID—cans of 13 fluid ounces. 1 part Enfamil Liquid to 1 part water for 20 cal. per fl. oz.

ENFAMIL POWDER—cans of 1 lb., with measure. 1 packed level measure of Enfamil Powder to 2 ounces of water for 20 cal. per fl. oz.

[†]The Latin Square technic, used for the first time in infant nutritional research to evaluate Enfamil, is a change-over method for intensive, controlled clinical testing which was applied to infants during their critical first 8 weeks of life. It is an efficient way of neutralizing the multiple variables in nutritional research.

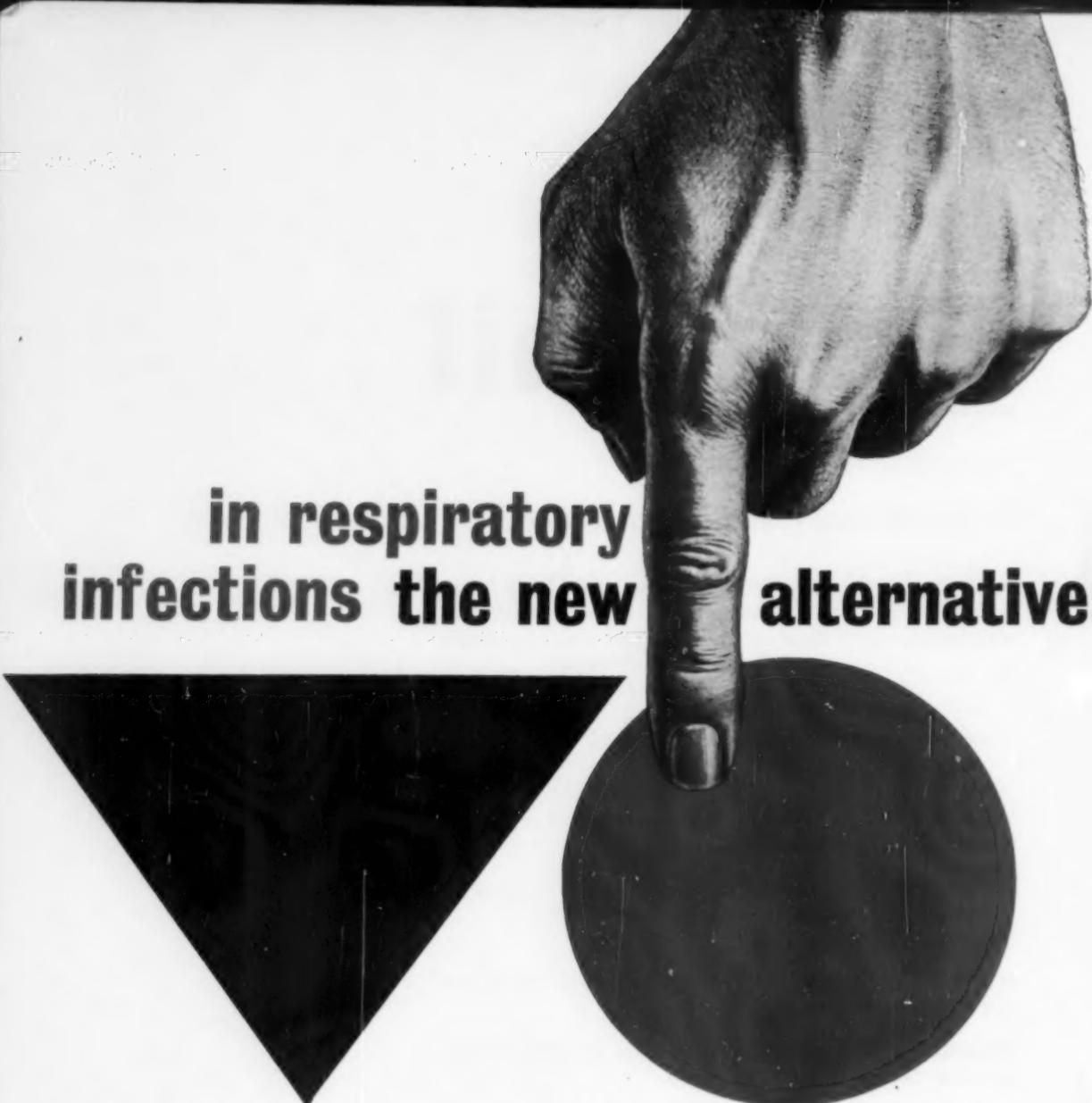
1. Macy, I. G.; Kelly, H. J., and Sloan, R. E., with the Consultation of the Committee on Maternal and Child Feeding of the Food and Nutrition Board, National Research Council: *The Composition of Milks*. National Academy of Sciences, National Research Council, Publication 254, Revised 1953. 2. Research Laboratories, Mead Johnson & Company.

MEAD JOHNSON & COMPANY, EVANSVILLE 2, INDIANA

*Trade Mark



Mead Johnson
Symbol of service in medicine



**in respiratory
infections the new alternative:**

In 25 years, the antibacterials have progressed from the status of heroic therapy to "universal" medication. This has brought into focus certain unexpected problems relating both to bacterial and to host response.

Shifts in bacterial flora—particularly of the gastrointestinal, as well as the respiratory and urinary tracts—pose entirely new therapeutic problems. The emergence of resistant strains of bacteria creates still another hazard. Also, anaphylactic reactions often hamper critically needed therapy.

While the question of bacterial mutations and patient sensitivity is undergoing continual intensive study, the immediate clinical need is for a new anti-infective alternative.

**The fastest-growing
antibacterial
bibliography:**

1. W. P. Rogers, *Antibiotics Annual 1959-1960*, New York, Medical Encyclopedia, Inc., 1959, p. 55.
2. B. A. Korsch, W. Kern and R. Engelberg, *Antibiotic Med. & Clin. Therapy*, 6:100, Feb. 1959.
3. S. Bone, J. B. Paig and E. A. Rosenthal, *Antibiotics Annual 1959-1960*, New York, Medical Encyclopedia, Inc., 1959, p. 55.
4. E. H. Townsend, Jr. and A. Burgstedt, *Antibiotics Annual 1959-1960*, New York, Medical Encyclopedia, Inc., 1959, p. 54.
5. J. D. Young, Jr., W. R. Kiser and O. C. Beyer, *Antibiotic Med. & Clin. Therapy*, 6:100, Feb. 1959.
6. B. H. Leming, Jr., C. Flantigan, Jr. and B. R. Jennings, *Antibiotic Med. & Clin. Therapy*, 6:100, Feb. 1959.
7. T. D. Michael, *Antibiotic Med. & Clin. Therapy*, 6:100, Feb. 1959.
8. W. A. Leff, *Antibiotic Med. & Clin. Therapy*, 6:100, Feb. 1959.
9. J. C. Ellis, *Antibiotic Med. & Clin. Therapy*, 6:100, Feb. 1959.
10. M. J. Mosely, Jr., *J. Nat. M. A.*, 51:318, July 1959.
11. S. Goss and A. J. Spino, *Pediatric Conference*, 5:14, Mar. 1959.
12. H. P. Immonen and C. Patel, *Antibiotic Med. & Clin. Therapy*, 6:100, Feb. 1959.
13. B. J. Schuttler and W. F. DeLorenso, *Antibiotic Med. & Clin. Therapy*, 6:100, Feb. 1959.
14. B. J. Schuttler, W. F. DeLorenso, E. Grunberg and B. (unpublished), *Proc. Soc. Exper. Biol. & Med.*, 99:421, Nov. 1958.
15. W. F. DeLorenso and R. Russomanno, *Antibiotic Med. & Clin. Therapy*, 6:100, Feb. 1959.
16. B. J. Schuttler, *Antibiotic Med. & Clin. Therapy*, 6:100, Feb. 1959.
17. W. F. DeLorenso and A. M. Schumacher, *Antibiotic Med. & Clin. Therapy*, 6:100, Feb. 1959.
18. O. Brundman, C. Oyer and R. Engelberg, *J. M. Soc. New Jersey*, 6:24, Jan. 1959.
19. J. F. Glaze, J. R. Johnson and J. B. Somers, *Antibiotic Med. & Clin. Therapy*, 6:100, Feb. 1959.
20. D. O. Randall, B. E. Bagdon and R. Engelberg, *Toxicol. & Appl. Pharmacol.*, 1:25, Jan. 1959.
21. S. M. Finegold, Z. Kuttinoff, H. O. Kendall and V. E. Kitchin, *Ann. New York Acad. Sci.*, 62:17, 44-50, 1958.
22. W. J. Goss, *ibid.*, p. 51.
23. L. E. Skinner, *ibid.*, pp. 57-60.
24. C. W. Dancow, *ibid.*, pp. 65-70.
25. S. W. Levy, *ibid.*, pp. 80-83.
26. M. M. Cahn and E. J. Levy, *ibid.*, pp. 84-91.
27. M. Sierp and J. W. Draper, *ibid.*, pp. 92-115.
28. G. A. Moore, *ibid.*, pp. 91-93.
29. W. P. Rogers and J. J. Gartin, *ibid.*, pp. 10-20.
30. J. C. Ellis, *ibid.*, pp. 12-16.
31. W. R. Kiser, O. C. Beyer and J. D. Young, *ibid.*, pp. 104-113.
32. B. H. Leming, Jr. and C. Flantigan, Jr., *ibid.*, pp. 31-39.
33. E. E. Bagdon, L. O. Randall and W. A. Leff, *ibid.*, pp. 3-9.
34. W. F. DeLorenso and B. J. Schuttler, *ibid.*, pp. 10-11.
35. G. Carroll, *ibid.*, pp. 110-113.
36. S. Krueger, *ibid.*, pp. 78-79.
37. E. H. Townsend, Jr. and A. Burgstedt, *ibid.*, pp. 31-39.
38. T. D. Michael, *ibid.*, pp. 40-42.
39. A. Thill, to be published.
40. J. C. Ellis, *ibid.*, in press.
41. B. Wulach, *Colorado G.P.*, 1:4, 1959.
42. H. L. Rosenthal and L. J. J. J. Lab. & Clin. Med., 34:461-465, Sept. 1959.
43. E. E. Bagdon, *Case Rep. Child. Hosp.*, Chicago, 17:445-446, May 1959.
44. P. Bruchnick and J. Langer, *Schweiz. med. Wochenschr.*, 89:404-408, Aug. 22, 1959.
45. J. Longley, J. David-Chamone, P. Ghand and J. Dettin, *J. med. Bordeaux*, 120:10, 713-715, June 1959.
46. B. H. Leming, Jr. and C. Flantigan, Jr., *Scientific Exhibition, Annual Meeting of the American Medical Association*, Atlantic City, N. J., June 1959.
47. J. C. Ellis, *ibid.*
48. G. Thalhammer (University Pediatric Clinic, Vienna, Austria), paper presented at the International Congress of Infectious Pathology, Milan, Italy, May 6-10, 1959.
49. R. Schuppli (Director, University Dermatological Clinic, Basel, Switzerland), *ibid.*
50. S. Russomanno (First University Surgical Clinic, Vienna, Austria), *ibid.*
51. M. Elieff (Institute of Surgical Pathology, University of Parma), *ibid.*
52. M. Reisch (University Pediatric Clinic, Bern, Switzerland), *ibid.*
53. N. Quattrin (Cardarelli Hospital, Naples, Italy), *ibid.*
54. H. Plesch (Department of Gynecology and Obstetrics, St. Francis Hospital, Nuremberg, Germany), *ibid.*
55. E. Pichs (First University Gynecological Clinic, Vienna, Austria), *ibid.*
56. R. Nulmeier (University Gynecology Clinic, Basel, Switzerland), *ibid.*
57. G. Montardier (Faculty of Medicine and St. Andrew's Hospital, Bordeaux, France), *ibid.*
58. S. T. Madson (Bergen, Norway), *ibid.*
59. W. P. Rogers, *ibid.*
60. P. Baenger (Medical Department, Heidberg General Hospital, Langensborn, Hamburg, Germany), *ibid.*

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the safe, one-dose-a-day sulfonamide

In over 15,000 documented cases, Madribon quickly controlled infection in up to 90 per cent of the patients and the incidence of side effects—chiefly nausea, vomiting and headache—was less than 2 per cent. It has proven clinically effective for infections with cultures positive for:

<i>Staphylococcus aureus hemolyticus*</i>	<i>B. proteus</i>
beta hemolytic streptococci	<i>E. coli*</i>
pneumococci	<i>Proteus*</i>
<i>K. pneumoniae</i>	<i>Shigella</i>
<i>H. influenzae</i>	<i>Salmonella*</i>
<i>Ps. aeruginosa*</i>	paracolon bacilli

*Some infections due to antibiotic-resistant strains have responded to Madribon.

MADRIBON

the new alternative in bacterial infections
for many reasons...

- wide-spectrum activity
- high rate of clinical effectiveness
- exceptionally low incidence of side effects—even in long-term use
- minimal risk of hazardous superinfections
- essentially no danger of anaphylactic reactions
- few problems with the development of resistant mutants
- simplicity of administration—just one dose a day
- economical therapy
- reserves antibiotic effectiveness for fulminating, life-threatening infections

Supplied: Madribon Tablets: 0.5 Gm, double scored, monogrammed, gold colored—bottles of 20, 250 and 1000. Madribon Capsules: 125 mg, gold colored—bottles of 100 and 1000. Madribon Suspension: 0.25 Gm/teasp. (5 cc), custard flavored—bottles of 4 oz and 16 oz. Madribon Pediatric Drops: 10-cc plastic container with special tip for dispensing drop dosage—each cc (20 drops) provides 250 mg Madribon.

MADRIBON®—brand of sulfadimethoxine (2,4-dimethoxy 6-sulfanilamido-1,3-diazine) MADRIBONTM ROCHE®



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A Superb Gift

FOR THE DOCTOR WHO
"HAS EVERYTHING"

THIS IMPORTED DECORATOR'S PIECE MAKES AN OUTSTANDING GIFT OR PRIZE THAT SURELY WILL BE TREASURED BY ITS RECIPIENT. COMBINING GRACE AND A TOUCH OF HUMOR, IT WILL ADD A NOTE OF CHARM TO A PHYSICIAN'S OFFICE OR HOME.

STYLED AND HAND-PAINTED BY ITALIAN ARTISTS, THE GLAZED CERAMIC STANDS ONE FOOT HIGH. PRICE: \$19.75 EACH. SEND CHECK WITH ORDER.

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DIAGNOSIS, PLEASE

(Answer from page 33a)

MEDIASTINAL EMPHYSEMA

Notice the free air along the pericardium.

WHO IS THIS DOCTOR?

(Answer from page 69a)

HERMAN HELMHOLTZ

MEDIQUIZ

(Answers from page 77a)

1 (E), 2 (C), 3 (E), 4 (C), 5 (C),
6 (C), 7 (A), 8 (D), 9 (C), 10 (D),
11 (A), 12 (C), 13 (C).

WHAT'S YOUR VERDICT?

(Answer from page 53a)

The Supreme Court affirmed the judgment of the lower court, holding: "Under the evidence the jury would have been warranted in finding a verdict against the physician, even though it accepted the cause of death suggested by him. The physician was negligent in failing to advise the parents that the child should have constant, expert supervision, such as would be given in a hospital or would be afforded by a nurse."

Based on decision of
Supreme Court of Washington

Does more than curb appetite...
also relieves the tensions of dieting



Appetrol[®]

DEXTRO-AMPHETAMINE + MILTOWN[®]

Helps you keep your patient
on your diet

AN EXTENSIVE SURVEY shows that in 68% of overweight persons there is an emotional basis for failure to limit food intake.¹ Appetrol has been formulated to help you overcome this problem and to keep your overweight patient on your diet.

THIS NEW ANORECTIC does more than give you dextro-amphetamine to curb your patient's appetite. It also gives you Miltown to relieve the tensions of dieting which undermine her will power.

IN PRESCRIBING APPETROL, you will find that your patient is relaxed and more easily managed so that she will stay on the diet you prescribe.

Usual dosage: 1 or 2 tablets one-half to 1 hour before meals.

Each tablet contains: 5 mg. dextro-amphetamine sulfate and 400 mg. Miltown (meprobamate, Wallace).

Available: Bottles of 50 pink, uncoated tablets.

1. Kotkov, B.: Group psychotherapy with the obese. Paper read before The Academy of Psychosomatic Medicine, October 1958.

 WALLACE LABORATORIES, New Brunswick, N. J.

CPL-210



Covering the Times

Christmas is for children—especially if they are hospital patients and separated from their families. This is the message conveyed by Alex Ross's painting for this month's cover.

The scene shows the playroom of the Norwalk (Conn.) Hospital's Pediatric Service. Dr. Allen Paisner, chief resident, demonstrates a fatherly touch as he assists a two-year-old patient affix an ornamental angel atop the Christmas tree. The doctor is no novice at this sort of thing as he has a son no older than his little patient.

Dressing the Christmas tree is always an exciting time for the youngsters under care in the pediatric section. But judging from the expressions on the faces of the hospital staff, it is difficult to determine whether they or the patients are having more fun.

Richard O. West, administrator of the 340-bed hospital which overlooks the waters of Long Island Sound, explains that hospital personnel seem to reach a peak of creativity during this meaningful season.

"Unusual seasonal delicacies from the kitchen

and unique holiday decorations in each nursing unit are combined with an extra amount of human warmth to help make Christmas memorable for bedridden patients. Most hearts, understandably, seem to overflow in abundance for the children who cannot be home for Christmas."

A special stocking for each patient is hung in the playroom on Christmas Eve. The climax of the holiday comes from the joy of watching two dozen small faces light up when gifts left by Santa Claus are given out Christmas morning.

Norwalk Hospital is one of Alex Ross's strong community interests. He is in the habit of dropping in from time to time, occasionally to develop a cover idea but more often just to say "hello" and perhaps to lend his talent to a new brochure planned by the institution.

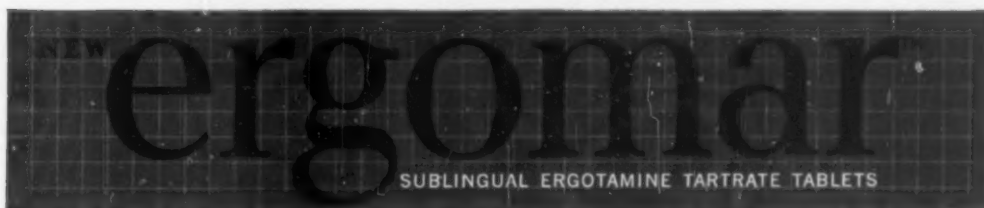
Like a full color reproduction of any of our cover paintings? They're printed on wide margin paper, ready for framing. Send 50c for a single print or \$2.50 for six (of a single cover or assorted).



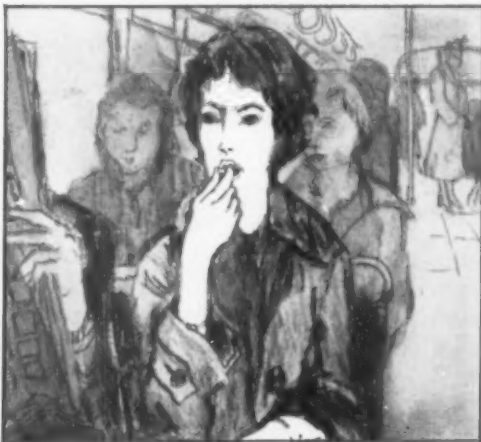
The playroom is an area favored by pediatric patients at Norwalk Hospital. Here a little boy holds the attention of playmates and volunteer worker.

NOW...
TINY TABLET UNDER TONGUE
STOPS MIGRAINE
'SICK' RECURRENT HEADACHE
FAST
SHUTS OFF PAIN
BLOCKS OUT FEAR
ANYTIME, ANYWHERE,
WITHOUT NEED EVEN FOR
A GLASS OF WATER

because prodromal warning usually tells patients that the time to arrest imminent migraine attack is right now, and the place to do it is right here.



MORE CONVENIENT... NO WATER, INJECTIONS OR PRIVACY NEEDED



All the patient has to do is to place a tiny ERGOMAR tablet under tongue. It enters blood stream directly through buccal lining, bypasses stomach and hepatic system and aborts vascular headache and migraine in approximately one half the usual time of ingested tablets.¹⁻³

NORDSON PHARMACEUTICAL LABORATORIES, INC. / 35A ELLIS AVENUE, IRVINGTON, N. J. (formerly Nordmark)

Dosage: Sublingually, 1 tablet at onset of attack. Additional doses may be taken, if necessary, as follows: 1 tablet every half-hour until relief is obtained. Total dosage must not exceed 3 tablets within 24 hours.

Contraindications: Peripheral vascular and coronary heart disease, hypertension, renal or hepatic dysfunction and pregnancy.

Supplied: ERGOMAR Tablets, 2 mg. ergotamine tartrate per tablet, in specially developed dispenser packages of 12 tablets. *May we suggest for patient convenience and economy, writing for not less than 12 tablets in a prescription.*

References: 1. DeJong, R. N.: GP 19:147, 1959. 2. Scientific Exhibit, 9th Annual Meeting, Am. Acad. Neurology, Boston, Mass., April 22-27, 1957. 3. Berman, B. A.: Current personal communication in the files of Nordson Laboratories. 4. Saunders, S. H.: Current personal communication in the files of Nordson Laboratories. 5. Blumenthal, L. S., and Fuchs, M.: Am. Acad. Neurology, Los Angeles, Calif., April 15-18, 1959. *Sublingual Administration of Ergotamine in Relief of Migraine and Vascular Headache.* ERGOMAR™ brand of specially processed ergotamine tartrate*

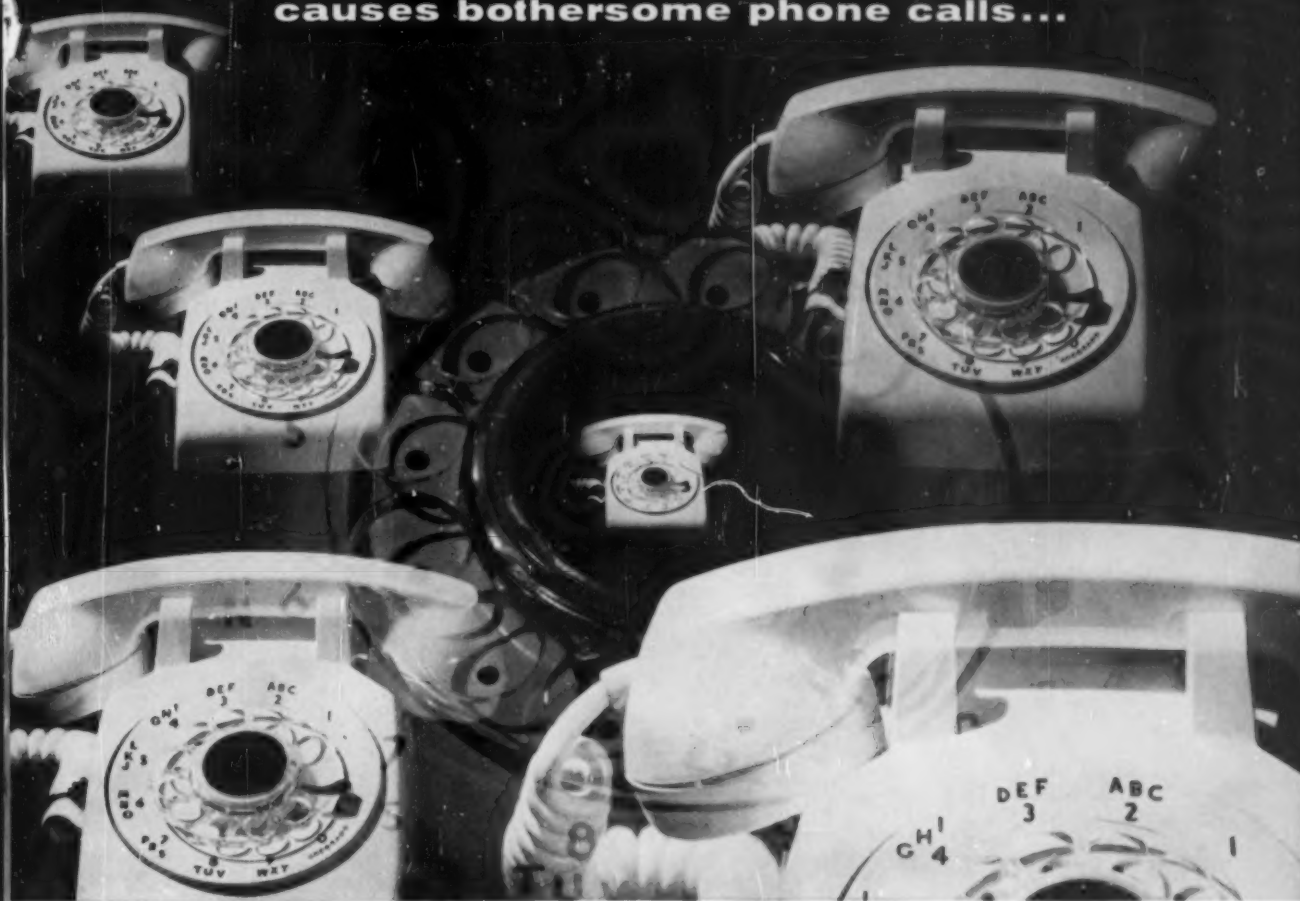




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¹ Hatfield, M. A.; Simpson, R. A., and Jackson, R. L.: J. Pediatr. 44: 20-45 (Jan.) 1954. ² Frost, L. H., and Jackson, R. L.: J. Pediatr. 30: 585-592 (Nov.) 1961. ³ Henrickson, W. E.: GP 9: 51-56 (Oct.) 1963. ⁴ Litchfield, H. R.: Arch. Pediatr. 61: 617 (Dec.) 1944.

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1. Elafeldt, H.W.: Case history 18/35. Personal communication. 2. Fuller, H.L. and Kassel, L.E.: *Antibiotic Med. & Clin. Therapy*, 3:322, 1956.



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*Goodman, L. S., and Gilman, A.: The Pharmacological Basis of Therapeutics, Ed. 2, The Macmillan Company, 1955, p. 1312.

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